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# Does attitude really exist? The anticipation model of implicit attitude

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**Abstract.** This study presents the anticipation model of implicit attitude. According to this model, implicit attitude is a part of the general nonspecific characteristics of an object or situation fixed in an individual's experience. This experience can be applied to new objects or situations without considering their specificity and become a basis for anticipation of their properties. The validity of such an approach is confirmed by psychosemantical study. The proposed model eliminates the issue of attitude being artificial because it emphasises its functional importance in the cognition process and behaviour. Implicit attitude is considered an aspect of experience that serves as a basis for forming preliminary mental representations of objects. This approach allows for the integration of original and modern conceptions of attitude. The results obtained render a generalised interpretation of such well-known psychological phenomena as the halo effect and the spreading attitude effect

**Keywords:** attitude; implicit attitude; anticipation; experience; mental representation

## INTRODUCTION

The concept of attitude has been traditionally considered as one of the most substantial notions in social psychology from the time of G.W. Allport (1935). Therewith, the use of this term is associated with a number of theoretical problems, and one of them is the existence of attitude as a stable construct. Furthermore, an understanding of this term has undergone some changes since G.W. Allport (1935). Today one of the most promising areas of research is the analysis of attitude on the basis of the dual-process theory, which suggests the existence of implicit and explicit cognitive processes. The main purpose of this study is to propose and justify the theoretical model of implicit attitude. It also attempts to show that this model allows solving a number of theoretical issues related to the nature and function of attitude, including the problem of its existence. In addition, the proposed model extends attitude beyond the limits of purely social psychology, considering it one of the basic elements of cognitive processes in general.

## LITERATURE REVIEW

Implicit attitude is usually understood as a latent (at least by origin) and automatically emerging evaluation of certain object as to some extent negative or positive (Gawronski & Bodenhausen, 2006; Greenwald & Banaji, 1995; Greenwald *et al.,* 1998; Stanley *et al.*, 2008; Uleman *et al.*, 2008; Wilson *et al.,* 2000). Firstly, this understanding of implicit attitude directly results from the definition of *attitude*, and secondly, from the modern concept of implicit cognitive processes. Both of these aspects will be considered in the following theoretical analysis.

**The concept of attitude**. Firstly, the question of what is attitude by itself is addressed. The most popular approach to defining it is as follows. Attitude is defined as a favourable or unfavourable disposition toward a certain object, i.e., a subjective evaluation of this object as to some extent negative or positive (Ajzen, 2001; Fazio, 2007; Fishbein & Ajsen, 1975; Gawronski & Bodenhausen, 2006; Heider, 1946; Olson & Fazio, 2001; Osgood *et al.*, 1957; Wilson *et al.,* 2000; Zimbardo &

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Leippe, 1991). In this aspect, objects of a social nature are most often what is meant (sometimes the term *social attitude* is used in this context (Carbon & Hesslinger, 2013)).

Considering the matter in more detail and discussing what this evaluation is and how it is formed, it is still too soon to speak about the unified position accepted in general. Therewith, the models suggest that attitudes based on object-evaluation associations, which are activated spontaneously upon relevant stimulus, are the most acceptable today. A variation of such ideas is the expectancy-value model (Ajzen, 2001; Fishbein & Ajsen, 1975). According to this model, evaluative meaning (attitude) arises spontaneously and inevitably every time people form an idea regarding an object. In this process, it is presumed that a particular object is associated with certain attributes in an individual's mind. A sum of the subjective evaluations of these attributes, combined with the force of association, delivers this object's final attitude.

The MODE Model (Fazio, 1990; 2007) suggests that attitude is a sum of represented in memory object-evaluation associations, which, if strong enough, could be activated automatically upon the encounter of a relevant object. Whether such an automatically activated attitude further influences an evaluative judgment of this object and behaviour depends on subjective motivation and the capacity to engage in elaborate processing. Similarly, the meta-cognitive model (Petty *et al.*, 2007) assumes that attitude is represented in memory object-evaluation associations that may have varying degrees of confidence and strength. According to this model, if new information about the object is available, new evaluative associations are simply added to the already existing attitude.

Notably, the approach of understanding attitude as a tendency for evaluating an object in a negative or positive way is neither the only approach nor the initial one. In the classic definition by G.W. Allport (1935), included in almost all textbooks on social psychology, "attitude is a mental and neural state of readiness, organised through experience and exerting a directive and dynamic influence upon the individual's response to all objects and situations with which it is related". This approach connects attitude with subsequent behaviour and considers it as a preliminary stage that directs and preconditions this behaviour.

At its core, this view is very close to the notion of a set, once developed in German psychological science. It implied selective readiness of an individual to react in a certain way to certain stimuli. This notion was introduced into scientific use after Lange showed that the time of the participants' reaction to a certain stimulus can be reduced when their attention is focused on this reaction in advance (Boring, 1961; Briñol & Petty, 2012).

According to both G.W. Allport (1935) and Lange, it is implied that an individual's previous experience determines the character of their perception of objects and behaviour toward those objects. This is more global property than just object evaluation. Evidently, the evaluation of an object, its subjective attractiveness or unattractiveness influences the nature of an individual's interaction with the object. Nevertheless, an already formed readiness to respond to the object in a certain way suggests a more complex concentration of experience than just a general evaluation of the "like-dislike" type.

Notably, the link between attitude (in the modern meaning) and behaviour is quite ambiguous in general. For example, the famous LaPiere studies have shown that participants who declared a discriminatory position toward certain social groups did not necessarily manifest this position during their interactions with members of these social groups (LaPiere, 1934). The ambiguous relationship between attitudes to certain social groups and behaviour has also been demonstrated in recent studies (Byrka *et al.*, 2019). In other words, attitude showed a rather weak capacity in determining behaviour. This casts doubt on attitude's role as a central category of social psychology (Allport, 1935) and raises the question of whether researchers need to pay as much attention to this subject as it invariably receives.

Moreover, this is one of the reasons to raise the question of whether attitude can be an artificial category. For instance, Schwarz challenges Allport's arguments in their support of the existence of attitude (Schwarz, 2006). As is known, G.W. Allport (1935) proved its existence because he needed to have some construct to explain consistent behaviour. Yet, as noted by Schwarz, what if this is "merely a scientific version of the laypeople's fundamental attribution error…, our well-known tendency to "explain" behaviour by reference to personal dispositions?" (Schwarz, 2006).

Indeed, the question arises whether attitude exists as some mental position, or if it just arises every time a participant needs to evaluate an object proposed by the experimenter as positive or negative. Doubts are reinforced by the results suggesting that people can form new attitudes to explain how they feel on one occasion or another. Based on these results, the supposition was made that attitudes are more current states of activation than ready evaluations accumulated in memory (Wilson *et al.,* 2000).

Another argument in favour of the "absence" of attitude is related to the high-context dependency of its indicators, which was identified in some studies (Ajzen, 2001; Wilson *et al.,* 2000). The point is that people can present different evaluations of the same object depending on the context of the stimulus presentation. Certainly, these data do not indicate the existence of attitude as some sustainable formation.

Regarding the problem of differences between declared attitudes and actual behaviour, a number of interesting theories were proposed to solve it. For example, it has been suggested that attitude is just one of the factors that influence the behaviour. Thus, in the theory of reasoned action, the authors argue that in explaining behaviour, it is important to consider social norms in addition to attitudes (Fishbein & Ajsen, 1975). The theory of planned behaviour (Ajzen, 1991) assumes that people act according to their intentions and perception of control over their behaviour, but intentions, in turn, are caused by attitudes, subjective norms, and perceptions of behavioural control.

It can be stated that in theories of this kind, the notion of attitude supersedes that in other scientific traditions associated with the notion of motive. Notably, motive is also assigned the functions of general predetermination of behaviour. In fact, attitude serves as a motive transferred in cognition. Consideration of attitude in this context makes it, by definition, a factor of the behaviour because it operates according to truism logic "If I like something, I prefer it" (or similarly, in the case of the motive, "If I want something, I go for it"). It is also obvious that attitude, in this case, will not be a single factor because apart from "like" or "want", there are subjective possibilities, an understanding of the situation, actualised values, and commitments etc. Therefore, the logic in the construction of these theories is quite natural. Therewith, the function commonality of attitude and motive does not remove the question of whether attitude is an artificial formation. First and foremost, it even reinforces the suspicions because, in this case, it comes down to the categorical augmentation of entities with which Ockham was struggling.

**The concept of implicit attitude.** However, attitude is traditionally associated not with motivation but with the cognitive sphere; thereby, it is related to opinions, beliefs, stereotypes, etc. (Greenwald & Banaji, 1995; Thurstone, 1928). In this context, attitude is usually understood as some latent basis or hypothetical construct that lies behind expressed opinions or beliefs (Bogardus, 1933; Campbell, 1950; Thurstone, 1928). Attitude is most often associated with prejudices and stereotypes, and, presumably, the most popular field of its study is prejudices to the outgroup (Bogardus, 1933; Byrka *et al.,* 2019; Campbell, 1950; Gawronski & Bodenhausen, 2006; Greenwald & Banaji, 1995; Greenwald *et al.,* 1998; Stanley *et al.,* 2008; Wilson *et al.,* 2000). Thus, attitude is considered as some stable disposition to certain objects, which does not always consider the need for change and the requirements of rationality.

In this connection, it is appropriate to recall another way to solve the problem of the discrepancy between attitude and behaviour. It is assumed that there are two different statuses of attitudes, which the individual may relate to the same object. The first is explicit, obvious, and reflects conscious evaluation; the second is implicit, hidden, and reflects the individual's "true" position toward an object, which is not always realised. Respectively, a participant can reveal an evaluation of an object that corresponds to an explicit attitude but act on the basis of latent evaluation.

T.D. Wilson *et al.* (2000) suggest that an implicit attitude is activated automatically when an individual encounters an attitude object, while an explicit attitude requires more cognitive capacity and motivation to be retrieved from memory. B. Gawronski & G.V. Bodenhausen (2006) consider that implicit attitudes are based on associative processes and explicit attitudes – on syllogistic propositional inference. In this case, implicit evaluation is automatically and spontaneously generated as soon as the individual is faced with a relevant stimulus. Content obtained from associative stores subsequently undergoes reflection and is transformed into the propositional format and presented in evaluation judgment. This will be the one external evaluation that is presented in explicit attitude.

Attitude separation into implicit and explicit attitudes is, in general, a particular case of similar division of cognitive processes. It is assumed that there are two formats of information processing: the first is based on unconscious, automatic, and fast cognitive processes, and the second – on conscious, voluntary, and slow cognitive processes. The first information-processing mode is also linked with the so-called reflexive system (System 1 or X-system), and the second – with the reflective system (System 2 or C-System) (Evans, 2008; Kounios & Beeman, 2009; Lieberman, 2003; Markovits *et al.*, 2018; Pennycook *et al.,* 2015; Uleman *et al.*, 2008). It is assumed that the first system is based on associative connections, while the second operates with propositional inference. Quick intuitive judgments formed by System 1 are subsequently tested by analytical System 2, which performs reflective functions in relation to these judgments. This way of understanding the operation of cognition is called the theory of dual processes.

Following the logic of this theory, it can be expected that implicit attitude has an unconscious nature. However, not all scientists are ready to agree with this concept. For instance, B. Gawronski & G.V. Bodenhausen (2006) believe that people, at least to some degree, can be aware of implicit attitudes. In this sense, an interesting approach was proposed by A.G. Greenwald & M.R. Banaji (1995), who think that "the signature of implicit cognition is that traces of past experience affect some performance, even though the influential earlier experience is not remembered in the usual sense – that is, it is unavailable to self-report or introspection". In other words, as applied to attitude, it is not an evaluation itself is unconscious, but a way of its formation – the subjective experience, which causes its occurrence.

Thus, the discrepancy between the declared attitude and actual behaviour can be explained by the assumption of the existence of implicit and explicit attitudes. In addition, the unconscious nature of formation and, possibly, operation of implicit attitudes helps to explain why attitudes are not always compatible with the requirements of rationality. Therewith, this theory does not eliminate the more global issue of the possible artificiality of this construct.

An explanation of attitudes' functional role in an individual's activity would provide the best proof of their existence as real and acting mental phenomena. In this sense, Allport's understanding of attitude has an advantage because it explains the functional importance of attitude as an accumulator of experience, which provides preparatory tuning of the individual/organism for future stimuli. Further consideration will be given to the ability of attitude to provide a positive or negative evaluation of an object for such a function. Initially, a broader assessment of this evaluation will be explored.

**The psychosemantical approach.** C.E. Osgood *et al.* (1957) investigated the connotative meaning of an object on the basis of evaluations, assigned to this object by participants on a number of scales. In this case, a verbally designated object (concept) was used, along with a number of scales, which had poles which were adjectives with opposite meanings. The participants were asked to evaluate this object with the characteristics provided. After that, the dataset obtained was mathematical processed. Although the adjectives used for subjective scaling were quite diverse, the different scales were highly correlated with each other and eventually reduced to a very small number of independent factors. What is even more interesting is that the obtained factors were almost unchanged for different objects. That is, most commonly, the same set of independent factors ("Evaluation", "Potency", "Activity") were allocated in the process of each object's evaluation with various scales.

Certainly, when using the specific characteristics for objects from different thematic areas, the obtained factor structure may be more complicated: additional factors may occur (when the original set of characteristics includes some specific features of a thematic area), and the "Power" or "Activity" factors may not occur or may merge into one factor. Meanwhile, the "Evaluation" factor is constant for a wide variety of objects. This factor just implies the generally positive or negative participants' position on an object, that is, attitude, which was discussed above (in the same way it was interpreted by C.E. Osgood *et al.,* 1957).

Such constancy of the "Evaluation" factor in characterising different objects indirectly suggests that attitudes are the constant companions of objects' concepts. This is also indicated by the invariance of factors selected by C.E. Osgood *et al.* (1957) regarding the various thematic areas. Indeed, the fact that the same factors are allocated while characterising the different objects indicates that the selection of these factors is independent of the objects. This is a ready-made set of parameters that apply to different things. Thus, these factors (in particular, "Evaluation") are important for us a priori; therefore, attitude is hardly an artificial formation.

Moreover, this apriority of these factors, i.e., independence from an object's specifics, means that in some level of cognition, this specificity is not important for us at all; it is important to know only whether an object is good or bad, big or small, changeable or permanent. By the way, these factors usually explain most of the data dispersion in the scale evaluation. The "Evaluation" factor (attitude) pertains to this level of cognition as its component. Therewith, it remains possible that the existence of these factors is conditioned by the very scale evaluation procedure, i.e. is an artefact. It is necessary to turn to the data of empirical examination to clarify that.

## MATERIALS AND METHODS

Initially, this study was formally directed not to analyse attitudes but to explore a phenomenon that manifests itself in certain features of advertising impact (Zhovtianska, 2004). Therewith, advertising impact is a good illustrator of the processes of the formation of attitudes, and often also the implicit processes. In this case, the influence on recipients of visual image-based advertising that does not contain any concrete information about the product therein represented. These "informationless" pictures and plots are often seen on TV or in magazines. The study intended to identify whether a viewer can form mental representations of advertised products (i.e. ideas about this product) under such circumstances and, if the answer is positive, what the grounds for it should be. As presented further, such mental representations were formed despite the lack of information, and attitudes have a direct bearing on this process.

**Method.** There were 99 participants (54 male and 45 female), National Technical University of Ukraine "Kyiv Polytechnic Institute" undergraduates. People who had experience with the products presented in the advertisement or who had any knowledge of them were eliminated from participating because the formation of ideas about the product only on the basis of advertising was desired. Thus, a different number of participants for the different advertised products was used (from 79 to 98). The exact number of participants for each product is shown in the table of results (Table 1).

**Table 1.** Pearson correlations between common factors for products and advertisements. Coefficients in bold are substantial, $p < 0.01$

| Product | Factor name | r | N |
|---|---|---|---|
| Perfume 1 | Evaluation | 0.78 | 95 |
| | Activity | 0.30 | |
| Perfume 2 | Evaluation | 0.63 | 95 |

Table 1, Continued

| Product | Factor name | r | N |
|---|---|---|---|
| Cologne 1 | Evaluation | 0.48 | 98 |
| | Non-triviality | 0.46 | |
| Cologne 2 | Evaluation | 0.63 | 98 |
| | Mysteriousness | 0.42 | |
| Cigarettes 1 | Evaluation | 0.62 | 79 |
| | Potency | 0.45 | |
| | Style | 0.45 | |
| | Elegance | 0.42 | |
| Cigarettes 2 | Evaluation | 0.50 | 79 |
| | Business-like air | 0.44 | |
| | Style | 0.05 | |
| Liquor 1 | Evaluation | 0.71 | 82 |
| | Antiquity | 0.12 | |
| Liquor 2 | Evaluation | 0.78 | 82 |
| | Coolness | 0.49 | |

**Source**: compiled by the author of this study

**Materials and procedure**. For the experiment, eight examples of print advertisements were selected, each containing only an artistic image that was unrelated to the product advertised or the product's trademark. The participants who were given these materials answered the following questions: first, whether the pictures presented to them contained any information about the products advertised, and second, whether the pictures provided any objective reasons for them to make conclusions about these products. Almost unanimous denial in the first and second cases were received. It was confirmation of the fact that the advertisement did not contain any real information about the product. In addition, the "informationless" nature of our advertising was provided by its specificity. The advertised goods were perfumes, colognes, cigarettes, and liquors. A visual image without semantic information cannot directly transmit taste or odour, which is essential for these types of products.

The participants were then asked to write out characteristics for each of the products and then to assign these characteristics to each of the advertising pictures. After that, the subjective scaling procedure used the most frequently used characteristics for the goods and the advertisements. It was built on the 18 scales (from -3 to 3) for each product and for each advertisement. Participants initially evaluated the products and then evaluated the advertising pictures. The data identified in the subjective scaling procedure was processed by the method of principal components. As a result, eight sets of factors for the advertisements, and, respectively, eight sets of factors for the commercial products presented in these advertisements were received.

## RESULTS

It was interesting to see that the average number of characteristics that the participants attributed to the goods was even higher than the number of characteristics they gave to the advertisements. That is, the fact that advertising does not provide information to form an idea of the product (as was noticed by the participants) has not prevented them from forming these ideas – at least at the level of preliminary guesses. People easily described the products using a variety of characteristics. Now, there is a question: what is the basis for forming the characteristics of the products if there are no objective reasons available for doing that? The results of the psychosemantic analysis cleared up the mystery.

As usually happens in such situations, the sets of factors that are received included both traditional, universal factors ("Evaluation", "Potency", "Activity") and non-universal, more or less non-specific factors (e.g., "Non-triviality", "Mysteriousness", etc.). The traditional factors were more loaded than the non-universal factors. Notably, the contents of the not universal factors for the products and the corresponding advertisements often coincided. Thus, many common factors were present in the evaluation of the products and the corresponding advertisements. The analysis shows that in most of the cases there were substantial correlations among these common factors (Table 1).

The results show that the more loaded (and, respectively, more non-specific) the factors, the closer the correlation was. In particular, the "Evaluation" factors have the highest factor loadings and the highest correlation coefficients. The "Potency" and "Activity" factors were not always present, but when present they always correlated. The common, more or less non-specific factors were correlated in most cases but weaker than the universal factors. Notably, more factors were connected by closer correlations than the separate common characteristics that make up these factors.

This allowed concluding that evaluations by non-specific factors are transferred from the advertisement to the product. For example, if the advertisement was perceived in a positive light by the recipient, i.e., is evaluated positively by the "Evaluation" factor, then most likely, the product will also be perceived positively and, accordingly, will be evaluated positively by the "Evaluation" factor. Furthermore, these transferred evaluations become the basis for the formation of preliminary ideas about this product; they unfolded in the concept of this product through the characteristics inherent to its specificity. For example, if an advertisement for perfumes was perceived by the recipient in a positive light by the "evaluation" factor, it would be reflected in the product description through such characteristics as "Aromatic", "Exquisite", "Expensive", etc. That is, the transfer does not involve primary characteristics by themselves but the deeper, more or less non-specific parameters (factors) that manifest themselves through these characteristics. This follows not only from the fact that the correlation of factor was closer than the correlation of separate characteristics. The point is that the descriptions of the products had many characteristics that were not in the descriptions of respective advertisements, and they could not be transferred directly.

## DISCUSSION

**General interpretation of results.** The results show that the advertising impact is conducted through non-specific (or more or less non-specific) factors, and the less specific the factor, the better the effect. In other words, the general impression from the advertisement is transmitted to the advertised product. This impression is represented by general factors of the object's evaluation. On the basis of this impression, the participants formed anticipations of a product's properties. Accordingly, the experience gained in one situation (perception of the picture) is used as some kind of prediction of stimuli properties that have not been presented in the experience before. Notably, this experience has mostly non-specific content, which allows it to be applied to objects of another nature. Being obtained as the impression from the advertising, it is transferred to a qualitatively different object – the advertised product.

The fact that objects of a different nature can be likened or vice versa differentiated in space of non-specific factors was already noted by C.E. Osgood (1953). In fact, the ability to locate and compare different objects in the same space gave their method the name of semantic differential. Osgood also stated that this ability is close to the metaphor in nature (Osgood, 1952).

The commonness of impressions from advertising and advertised products is close in substance to the metaphorical likening. Objects of an entirely different nature are also likened in the metaphor on the basis of our subjective impressions. Approximately the same thing is happening in this case: the products and advertisements were combined in the space of underlying factors, which reflect more general impressions than specific data.

Notably, the factor-based evaluations transfer from advertising to the product allows recipients not merely to "restore" the more specific characteristics of the product, i.e. imagine it. The participants of this study were not given the task to train the imagination. They wrote out the characteristics that, in their opinion, should be inherent to the product. Therefore, it is not poetical but rather very pragmatic capacities of such metaphoric transfer that are used in advertising. Participants form anticipations about the potential characteristics of the product, although they understand that there are no objective reasons for these judgments. This kind of advertising forms a certain non-specific experience in its recipient and hopes, not without good reason, that this experience will be used in the future.

As seen, an important part of this experience is the evaluation component, which reflects the subjective attractiveness of an object ("Evaluation" factor), that is attitude in its modern interpretation. Therewith, the nature of this attitude functioning and other non-specific factors more closely resemble what has been called attitude by G.W. Allport (1935). In fact, Allport's approach implies that the experience previously gained by the individual forms a state of preliminary readiness with regard to certain stimuli. In this case, this readiness manifested in anticipation of certain properties of advertised objects, and the state of readiness is based on a non-specific experience obtained based on the perception of advertising. Generally, the study has reached the intersection of the contemporary and original understanding of attitude as presented by G.W. Allport (1935).

Thus, it can be stated that attitude performs a real function in behaviour. It could be an element of non-specific experience, allowing the formation of a preliminary mental representation of the object (ideas about the object). It plays the role of anticipation with regard to future situations, things, and phenomena of reality. From this, it follows that attitude is not an artefact but a real and valid mental phenomenon.

Therewith, a more complicated state of readiness for a new stimulus than just simple evaluation of the stimulus is evident. The results presented indicate that it is expedient to extend the views on attitude, and it should be seen within the context of the functioning of a broader system more or less to non-specific parameters, among which subjective evaluation of an object as positive or negative is only an element, though an important one.

In addition, there is one more important point. The context of this empirical study does not involve just attitude, but implicit attitude. Externally it is manifested through certain judgments – the characteristics that should be inherent to the advertised object as seen from the viewpoint of the participants. Therewith, for these people, these characteristics are, in a certain meaning of the word, groundless: at least, they do not see any objective reasons or have any available information suitable to make these judgments. By their origins, these judgments are of an automatic and spontaneous nature rather than a voluntary and deliberate nature. That is, the implicit are not the ideas about the object (their existence is clearly expressed in the participants, at least at the level of expecting the object to have certain properties) but the grounds for such ideas to emerge. It is the use of experience that has the implicit nature in this case.

The important thing here is not even the reports of the participants. The point is that the experience obtained by the participants during their interaction with an object of a certain nature (advertising picture) is translated to an object of a completely different nature (the product advertised). From an objective viewpoint, this is an absolutely inadequate transfer. The advertisement and the product are combined only formally, and the impression from the artistic image has no relation to the product that was just named in the picture. In this case, the transfer of the evaluations by non-specific factors did not correlate in any way to the explicit reason.

**The relationship of the results to other models and concepts.** Operating on the characteristics of an object without reference to objective analysis is very close to the theories of dual processes associated with System 1. Indeed, these non-specific characteristics serve as a heuristic and form a fast preliminary conclusion about an object, as they do in System 1. Furthermore, this is one aspect of our experience, which, as demonstrated, is used without any rational analysis. It provides a spontaneous impression of the object, rather than an analytical knowledge of it. Therewith, the evaluation component by itself is an important aspect of this impression. Thus, the attitude is woven into the work of implicit processes, and it will be present in people's cognitions before the reflexive system intervenes.

The above empirical data suggests that there is a level of functioning of cognition where an object is represented in its non-specific characteristics. Then, it can be assumed that it is just that material that is operated by implicit cognitive processes (System 1). The activity of System 1 is something more complicated than just associative processes. Although the basis of the associations' forming may be the common non-specific characteristics between a stimulus and a response. In any case, this allows a fresh look at System 1, still known very little about.

While the results of this study completely align with the theory of dual processes, they come into partial contradiction with the expectancy-value model of attitude. To be more exact, the part of it where attitude is viewed as a summary of subjective values of an object's attributes, as assigned to it by an individual, including the strength of the corresponding associations (Fishbein & Aisen, 1975). The point is that according to this model, attitude is secondary to an individual's analysis of the various characteristics of an object in terms of their positive or negative evaluation. In this case, though, it appears that attitude is, on the contrary, a basis to form the characteristics of a product, which are then assigned to this product by the individuals.

At first sight, the expectancy-value model seems to be more logical and even trivial. Indeed, if an object has positive characteristics from the viewpoint of the individual, it will be evaluated in a positive way; if it has negative characteristics, it will be evaluated in a negative way, respectively. Therewith, the data shows that an object may be evaluated in this way or another even without the individual understanding what characteristics this object actually has.

Generally speaking, the question of priority of an object's characteristics and an object's attitude is relative similar to the question of the chicken and the egg. For example, this experiment showed that the characteristics of a product are built on the basis of an already existing attitude, while the attitude itself was formed as an experience of the individual's interaction with advertising and was therefore secondary to the characteristics of this advertising. In fact, it appears that the mental representation of a new object is never formed out of nothing but always makes use of developments based on a previous experience. In this study, it is attempted to prove that attitude can act as just such a development.

Studies confirming the active use of previous experience as previewing hypotheses for further cognitive activity and behaviour of the organism (or individual) have long been classics. The perception of stimuli by building and verifying such latent experience-based hypotheses has already been laid on the psycho-physiological substrate (Greve, 2015). In the psychological realm, it was identified both for relatively simple cognitions on the level of perception (Bruner, 1973; Neisser, 1976; Seth, 2013; Sherif & Cantril, 1945), more complicated mental processes (Baus *et al.,* 2014), and also social behaviour (Guerin, 1991).

The obtained empirical data show that when forming ideas about an object, the role of such hypotheses or anticipations is played by the general non-specific characteristics of the object, in particular, its evaluation, i.e. attitude. It was also observed that this is an implicit attitude. In fact, it is quite logical that implicit cognitive processes fulfil the role of anticipations. These are fast processes that provide a result before a complete and broad analysis of the situation is ready. Therefore, it is logical that the evaluation and preliminary impression of an object may be formed before the individual has a clear understanding of its various characteristics and evaluates them. An especially substantial role in this belongs to the attitude. For an organism, during its interaction with the environment, it can be very important to get a quick evaluation of the situation. For example, if it is dangerous, then it will not have the time and opportunities for a more detailed analysis.

**The anticipation model of implicit attitude and its explanatory potential.** In light of the foregoing, the presented considerations about the nature of implicit attitude may be called the anticipative model. This model suggests that implicit attitude is a part of the general nonspecific characteristics of an object or a situation fixed in an individual's experience. This experience can be transferred to another object or situation, with no regard to their specificity, and become a basis for anticipation of their properties. This model emphasises the functional importance of attitude, which is considered neither as a secondary (side) aspect of cognition nor as a substitute for a motive, but as a basis for the formation of ideas about reality. In particular, this allows the removal of the issue of artificial introduction of this category. In short, the model suggests considering implicit attitude as a substantive element of experience, which is used to anticipate the properties of unknown objects without rational justification. The above-mentioned results provide the opportunity to explain a number of well-known psychological phenomena.

Firstly, it is the well-known halo effect discovered by E.L. Thorndike (1920), later proven in multiple studies. Thorndike showed that if a person is characterised positively by others for some single feature, this person is more likely to be characterised positively for other features, even with the absence of objective evidence for that. That is, it involves the generalisation of characteristics assigned to a certain personality. Furthermore, social psychology is engaged in the active study of examples in the "transfer" of features from one personality to another personality that is associated with it (Carlston & Skowronski, 2005; Uleman *et al.,* 2008). It is believed that in such cases, associations of the "person-feature" type formed in regard to one object are then just reproduced in the description of the other object (Carlston & Skowronski, 2005).

The results obtained in research of non-information advertising allow claiming that the transfer from one person to another does not involve features themselves but more general connotative factors that manifest themselves further through certain characteristics adequate for these objects in the course of an object's description. The same thing happens in a case with the halo effect: positive characteristics of a person by one feature are an indicator of corresponding exponents by the more general evaluative factor, which shows a tendency for manifestation through other positive characteristics. Thus, the implicit attitude manifestations are presented in the anticipation model. These manifestations relate to the transfer of implicit attitude to another object and the ability of implicit attitude to be an anticipation of the properties of this new object.

Another phenomenon, inherently similar to the phenomenon of impression-transfer in advertising influence, is known as the "spreading attitude effect" (Uleman *et al.*, 2008) or as "evaluative conditioning" (Gawronski & Bodenhausen, 2006; Jones *et al.,* 2010). This concept suggests that if some neutral stimulus is constantly coupled with a subjectively not indifferent stimulus (positive or negative), then this once neutral stimulus begins to be perceived in a positive or negative way (depending on how the not indifferent stimulus was evaluated). That is, the evaluation impression seems to flow from one object to the other that is connected associatively with it.

Something similar can be observed in the influence of non-informational advertising: the impression provoked by the advertising is associatively transferred to the name of the product mentioned there. Therewith, the situation is more complicated in this case: in the first place, the impression extends not on the name by itself but on the contents, i.e. on the product; in the second place, this impression appears to be something more complicated than a merely positive or negative evaluation. That is, classical evaluative conditioning is a separate and simple case of the more general process of a transfer of a non-specific experience recorded in this experiment by the example of the advertising influence.

Further, the results obtained on the basis of this experiment allow considering not only the social-psychological mechanisms but also the general-psychological mechanisms that are connected to the universal process of cognition – this can be claimed preliminarily. It is the implicit formation of mental representation of an object based on the existing individual experience associated with this object, involving, in particular, the use of an implicit attitude.

## CONCLUSIONS

Experimental data allows the consideration of implicit attitude as an aspect of experience that provides the anticipation of new stimuli properties. It can serve as a basis for forming preliminary mental representations of objects (ideas about objects) and thus is an element of a predictive system. This understanding emphasises the functional importance of attitude in the process of cognition and adaptive behaviour and allows the resolution of the issue of its artificial nature. This standpoint brings us back to the starting point once set by Allport. However, returning to this starting point happens at a new level, at a new turn of the spiral, with the involvement of knowledge about the implicit attitude. In this study, implicit attitude based on the specifics of the task set before the participants was examined. The direction for further research could be to verify the relevance of the proposed model using special methods for investigating implicit processes. Another promising area for research may be the role of attitudes in the formation of implicit cognitions represented by System 1.

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## CONFLICT OF INTEREST

None.

## REFERENCES

[1] Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. doi: 10.1016/0749-5978(91)90020-T.

[2] Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology,* 52(1), 27-58. doi: 10.1146/annurev.psych.52.1.27.

[3] Allport, G.W. (1935). Attitudes. In C. Murchison (Ed.), *Handbook of social psychology* (pp. 798-844). Worcester, MA: Clark Univ. Press.

[4] Baus, C., Sebanz, N., de la Fuente, V., Branzi, F.M., Martin, C.D., & Costa, A. (2014). On predicting others' words: Electrophysiological evidence of prediction in speech production. *Cognition*, 133(2), 395-407. doi: 10.1016/j.cognition.2014.07.006.

[5] Bogardus, E.S. (1933). A social distance scale. *Sociology and Social Research,* 17, 265-271.

[6] Boring, E.G. (1961). The beginning and growth of measurement in psychology. *Isis*, 52(2), 238-257. doi: 10.1086/349471.

[7] Briñol, P., & Petty, R.E. (2012). A history of attitudes and persuasion research. In A.W. Kruglanski & W. Stroebe (Eds.), *Handbook of the history of social psychology* (pp. 283-320). NY, London: Psychology Press.

[8] Bruner, J.S. (1973). *Beyond the information given: Studies in the psychology of knowing.* New York: Norton.

[9] Byrka, K., Grzyb, T., & Dolinski, D. (2019). The question-behaviour effect in intergroup attitudes research: When do attitudes towards a minority predict a relevant behaviour? *International Journal of Psychology*, 54(3), 297-306. doi: 10.1002/ijop.12469.

[10] Campbell, D.T. (1950). The indirect assessment of social attitudes. *Psychological Bulletin*, 47(1), 15-38. doi: 10.1037/h0054114.

[11] Carbon, C.C., & Hesslinger, V.M. (2013). Attitudes and cognitive distances: On the non-unitary and flexible nature of cognitive maps. *Advances in Cognitive Psychology*, 9(3), 121-129. doi: 10.2478/v10053-008-0140-y.

[12] Carlston, D.E., & Skowronski, J.J. (2005). Linking versus thinking: Evidence for the different associative and attributional bases of spontaneous trait transference and spontaneous trait inference. *Journal of Personality and Social Psychology*, 89(6), 884-898. doi: 10.1037/0022-3514.89.6.884.

[13] Evans, J.S. (2008). Dual-processing accounts of reasoning, judgment, and social cognition. *Annual Review of Psychology*, 59, 255-278. doi: 10.1146/annurev.psych.59.103006.093629.

[14] Fazio, R.H. (2007). Attitudes as object-evaluation associations of varying strength. *Social cognition*, 25(5), 603-637. doi: 10.1521/soco.2007.25.5.603.

[15] Fazio, R.H. (1990). Multiple processes by which attitudes guide behavior: The Mode Model as an integrative framework. *Advances in Experimental Social Psychology*, 23, 75-109. doi: 10.1016/S0065-2601(08)60318-4.

[16] Fishbein, M.A., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research.* Reading, MA: Addison-Wesley.

[17] Gawronski, B., & Bodenhausen, G.V. (2006). Associative and propositional processes in evaluation: An integrative review of implicit and explicit attitude change. *Psychological Bulletin*, 132(5), 692-731. doi: 10.1037/0033-2909.132.5.692.

[18] Greenwald, A.G., & Banaji, M.R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review*, 102(1), 4-27. doi: 10.1037/0033-295X.102.1.4.

[19] Greenwald, A.G., McGhee, D.E., & Schwartz, J.L.K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74(6), 1464-1480. doi: 10.1037/0022-3514.74.6.1464.

[20] Greve, P.F. (2015). The role of prediction in mental processing: A process approach. *New Ideas in Psychology*, 39, 45-52. doi: 10.1016/j.newideapsych.2015.07.007.

[21] Guerin, B. (1991). Anticipating the consequences of social behavior. *Current Psychology*, 10, 131-162. doi: 10.1007/BF02686772.

[22] Heider, F. (1946). Attitudes and cognitive organization. *The Journal of Psychology*, 21(1), 107-112. doi: 10.1080/00223980.1946.9917275.

[23] Jones, C.R., Olson, M.A., & Fazio, R.H. (2010). Evaluative conditioning: The "How" question. *Advances in Experimental Social Psychology*, 43, 205-255. doi: 10.1016/S0065-2601(10)43005-1.

[24] Kounios, J., & Beeman, M. (2009). The aha! Moment: The cognitive neuroscience of insight. *Current Directions in Psychological Science*, 18(4), 210-216. doi: 10.1111/j.1467-8721.2009.01638.x.

[25] LaPiere, R.T. (1934). Attitudes vs. Actions. *Social Forces*, 13(2), 230-237. doi: 10.2307/2570339.

[26] Lieberman, M. (2003). Reflexive and reflective judgment processes: A social cognitive neuroscience approach. In J.P. Forgas, K.D. Williams & W. von Hippel (Eds.), *Social judgments: Implicit and explicit processes* (pp. 44-67), Cambridge: Cambridge University Press.

[27] Markovits, H., Brisson, J., de Chantal, P.-L., & Singmann, H. (2018). Multiple layers of information processing in deductive reasoning: Combining dual strategy and dual-source approaches to reasoning. *Journal of Cognitive Psychology*, 30(4), 394-405. doi: 10.1080/20445911.2018.1458729.

[28] Neisser, U. (1976). *Cognition and reality: Principles and implications of cognitive psychology*. San Francisco: W.H. Freeman.
[29] Olson, M.A., & Fazio, R.H. (2001). Implicit attitude formation through classical conditioning. *Psychological Science*, 12(5). doi: 10.1111/1467-9280.00376.
[30] Osgood, C.E. (1952). The nature and measurement of meaning. *Psychological Bulletin*, 49(3), 197-237. doi: 10.1037/h0055737.
[31] Osgood, C.E. (1953). *Method and theory in experimental psychology*. New York: Oxford University Press.
[32] Osgood, C.E., Suci, G.J., & Tannenbaum, P.H. (1957). *The measurement of meaning*. Urbana: University of Illinois Press.
[33] Pennycook, G., Fugelsang, J., & Koehler, D. (2015). What makes us think? A three-stage dual-process model of analytic engagement. *Cognitive Psychology*, 80, 34-72. doi: 10.1016/j.cogpsych.2015.05.001.
[34] Petty, R.E., Briñol, P., & Demarree, K. (2007). The meta-cognitive model (MCM) of attitudes: Implications for attitude measurement, change, and strength. *Social Cognition*, 25, 657-686. doi: 10.1521/soco.2007.25.5.657.
[35] Schwarz, N. (2006). Attitude research: Between Ockham's razor and the fundamental attribution error. *Journal of Consumer Research*, 33(1), 19-21. doi: 10.1086/504124.
[36] Seth, A.K. (2013). Interoceptive inference, emotion, and the embodied self. *Trends in Cognitive Sciences*, 17(11), 565-573. doi: 10.1016/j.tics.2013.09.007.
[37] Sherif, M., & Cantril, H. (1945). The psychology of "attitudes": Part 1. *Psychological Review*, 52(6), 295-319. doi: 10.1037/h0062252.
[38] Sherif, M., & Cantril, H. (1946). The psychology of "attitudes": Part 2. *Psychological Review*, 53(1), 1-24. doi: 10.1037/h0058561.
[39] Stanley, D., Phelps, E., & Banaji, M. (2008). The neural basis of implicit attitudes. *Current Directions in Psychological Science,* 17(2), 164-170. doi: 10.1111/j.1467-8721.2008.00568.x.
[40] Thorndike, E.L. (1920). A constant error in psychological ratings. *Journal of Applied Psychology*, 4(1), 25-29. doi: 10.1037/h0071663.
[41] Thurstone, L.L. (1928). Attitudes can be measured. *American Journal of Sociology*, 33(4), 529-554.
[42] Uleman, J.S., Adil Saribay, S., & Gonzalez, C.M. (2008). Spontaneous inferences, implicit impressions, and implicit theories. *Annual Review of Psychology*, 59, 329-360. doi: 10.1146/annurev.psych.59.103006.093707.
[43] Wilson, T.D., Lindsey, S., & Schooler, T.Y. (2000). A model of dual attitudes. *Psychological Review*, 107(1), 101-126. doi: 10.1037/0033-295x.107.1.101.
[44] Zhovtianska, V.V. (2004). Translation of meanings in the process of advertising influence. *Practical Psychology and Social Work*, 5, 42-45.
[45] Zimbardo, P.G., & Leippe, M.R. (1991). *Psychology of attitude change and social influence*. New York: McGraw-Hill.

## Чи існує таке ставлення насправді? Модель антиципації імпліцитного ставлення

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**Анотація.** У даній статті представлена модель антиципації імпліцитного ставлення. Згідно з цією моделлю, неявне ставлення є частиною загальних неспецифічних характеристик об'єкта або ситуації, закріплених у досвіді особистості. Цей досвід може застосовуватися до нових об'єктів або ситуацій, не враховуючи їх специфічність, і стати основою для антиципації їх властивостей. Обґрунтованість такого підходу підтверджена психосемантичним дослідженням. Запропонована модель дозволяє уникнути питання штучності ставлення, оскільки вона підкреслює його функціональне значення у процесі сприйняття та поведінки. Неявне ставлення розглядається як аспект досвіду, що служить основою для формування попередніх ментальних уявлень про об'єкти. Цей підхід дозволяє інтегрувати оригінальні та сучасні концепції світовідчуття Отримані результати дають узагальнену інтерпретацію таких відомих психологічних феноменів, як ефект ореолу та ефект поширення ставлення

**Ключові слова:** ставлення; імпліцитне ставлення; антиципація; досвід; ментальна репрезентація

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# Digital applications as tools for psychological adaptation of citizens to changes

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**Abstract.** Due to the military aggression of the Russian Federation in Ukraine, citizens experience acute stress, other mental and emotional burdens, and mental disorders. Digital technologies can serve as a tool to improve mental health and psychological support for citizens, especially for those who have limited access to direct contact with a psychotherapist, by developing applications for psychological adaptation and maintaining mental balance. The purpose of the study is to determine the availability and optimal content of mobile applications for the mental health and psychological balance of Ukrainians. A search and analysis of existing solutions in the category of E-MentalHealth (digital services for mental health) in Ukraine and other countries was conducted. An empirical study of their features was conducted, and a proposal for optimal content for mobile applications as auxiliary tools for working with a psychotherapist specialist or for providing psychological assistance to citizens during martial law was formed. To assess the need for such applications, a survey, "My psychological state in the evacuation", was conducted among respondents outside the country. The online questionnaire "Ukrainians and digital services" was used to determine the most important features among the list of formed offers for optimal application content. It was attended mainly by young people who remained in the country during the military aggression. The results confirmed the need for mobile applications for mental health and psychological assistance among Ukrainian citizens, including those who stayed in the country during the war and those who were evacuated to other countries. Recommendations are given for mandatory features that can be considered technical requirements for developing or improving a multifunctional application in the category of E-Mental-Health

**Keywords:** digital competence; adaptation; stress; media literacy; psychological assistance applications; E-Mental-Health; digital technologies in military conflict; digital society

## INTRODUCTION

Humanity, including the citizens of Ukraine, is facing substantial challenges and social crises, which negatively impact people's psychological well-being. The spread of the coronavirus in 2020-2021 exacerbated psychological issues in many citizens worldwide, leading to increased rates of depression and contributing to the adoption of digital technologies in many countries (Sorkin *et al.*, 2021). According to data from App Stores and Google Stores, during the pandemic, downloads of mental health apps increased by 30% (NAKO Health Study…, 2020). In 2022, the world experienced military conflicts and natural disasters, notably the military aggression of the Russian Federation in Ukraine and the threat of nuclear war, further increasing the prevalence of mental health disorders globally. Victims of the war, enduring prolonged periods of acute stress in Ukraine and during evacuation in other countries, especially require psychological support and specialist

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intervention (Buzarov, 2023). Nevertheless, as demonstrated by prior studies (Ronzhes, 2022), Ukraine has developed adequate high-quality state and municipal digital solutions for physical, documentary, and organisational adaptation to crisis situations, such as alarm notifications. However, there is a lack of readily accessible and user-friendly practical solutions for maintaining the mental well-being of Ukrainians.

According to a report by the specialised division of the UN children's fund UNICEF (UNICEF, n.d.), the mental health of young people worldwide was already a concern for many even before the 2020/2021 coronavirus pandemic. Since then, the trend has worsened, with one in seven individuals between the ages of 10 and 19 diagnosed with a psychological or mental disorder. Can programmes for psychological balance and mental health help in the presence of psychological problems or mental disorders? What are the pros and cons of using digital services, and what should be considered when developing or selecting a programme for balancing the psychological state?

The purpose of the study is to determine the availability and optimal content of mobile applications for the mental health and psychological balance of Ukrainian citizens. The objectives are to investigate the need for digital solutions for the mental health and psychological balance of Ukrainian citizens, analyse the availability of such solutions and the features that could be useful in digital services for Ukrainians, and provide recommendations regarding the content of digital solutions for the mental health and psychological balance of Ukrainian citizens.

The originality of the study lies in the urgent need for psychological assistance among many Ukrainians due to the crises and losses of the modern war, which necessitates the use of information technologies as an effective tool to aid psychologists and psychotherapists. However, existing applications from other countries are geared towards peacetime challenges, and their usage experience needs to be supplemented to meet current needs. The analysis of existing successful solutions, combined with features relevant to wartime conditions, provides a new perspective on the issue of digital assistants for mental health during military operations and for support in mitigating their psychological effects on Ukrainian citizens.

## MATERIALS AND METHODS

To achieve the purpose, the study was divided into the following stages:

1. Digital solutions for the mental health of Ukrainians: a search and analysis of available digital solutions in the Ukrainian language for psychological assistance to citizens.

2. Global experience with E-Mental-Health applications: a search and analysis of existing mobile applications from other countries for psychological assistance to citizens.

3. The need for a Ukrainian psychological assistance application: a survey and discussions with Ukrainians in evacuation regarding their psychological state and willingness to use digital solutions for psychological assistance, with an analysis of the responses.

4. Desired features of the psychological assistance application: an online survey of Ukrainian citizens regarding the desired features of psychological assistance applications, with an analysis of the results.

5. Recommended features of the E-Mental-Health application: the development of a list of features that should be included in psychological care applications.

The following methods were used to achieve the objectives of the study and address the specified issues.

1. This paper analyses scientific literature and reviews current articles and studies on citizens' adaptation to aggression and the level of stress due to war, as presented on the Web of Science, Scopus, and Google Scholar platforms.

2. To investigate the need for digital solutions for the mental health and psychological balance of citizens, two surveys were conducted: a survey with direct real-time contact with the target audience of potential applications titled "My psychological state in the evacuation" (115 Ukrainian citizens in the federal state of North Rhine-Westphalia, Germany, in evacuation due to the military aggression of the Russian Federation in Ukraine); and the online survey "Ukrainians and digital services" (158 citizens of Ukraine under 30 years of age, three-quarters of whom are in Ukraine).

3. To analyse the successful solutions available for digital psychological assistance, a review was conducted of digital services in the mental health category presented in the Google Play and AppStore application stores and applications certified in Germany as medical services for psychotherapy. Germany was chosen because of the large number of Ukrainians who were evacuated there and the availability of mandatory medical insurance, which grants access to certified psychological care applications as required.

## RESULTS AND DISCUSSION

The following results were obtained from the stages of the study.

**Stage 1. Digital offers for the mental health of Ukrainians.** At the first stage of the study, available digital solutions in the Ukrainian language for psychological assistance to citizens were searched for and analysed.

The psychological risks of war have shown that digital technologies are an effective tool for adapting Ukrainian citizens to military challenges (Ronzhes, 2022). Numerous applications and digital services have been developed to assist with challenges related to physical survival, document access, some official services, and other basic needs. This experience is unique in the modern digital space and is considered by other countries to develop further strategies for the development of a digital society, as noted at the Smart

City World Congress in Barcelona (Ronzhes, 2022). Furthermore, these services can act as auxiliary tools for citizens to use adaptive coping strategies.

However, mobile digital solutions for psychological support or urgent psychophysiological self-balancing in the Ukrainian language were lacking. Such opportunities are extremely necessary for people traumatised by the war in their own country, who are at risk, forced to leave the country and go to evacuation, and who experience long-term stress and fear for themselves or their loved ones. Similarly, psychological support applications can help form a picture of one's future (Van Assche *et al.*, 2022) and motivation for survival and adaptation, which many Ukrainians currently lack. The following potential applications of digital solutions in the category of mental health for Ukrainian citizens are outlined below.

At the start of the full-scale military aggression by the Russian Federation in Ukraine, starting from the end of February 2022, psychological support to help people cope with the challenges and losses of war was primarily provided by volunteer specialists working individually or in groups. For example, specialists from the public organisation "La Strada-Ukraine", the Mental Health Care Service of the charitable foundation "Right to Defense", the all-Ukrainian hotline Lifeline Ukraine and the National Psychological Association provided free assistance to those who are in a state of acute stress during the war (Uretii, 2022).

No specific digital solutions for mental health were offered. Initially, efforts in the IT industry were focused on developing digital solutions to ensure citizen survival, such as alert messages about danger and potential harm. Volunteer specialists utilised existing digital services like online conference applications and messaging platforms to offer psychological support in the early months. In April 2023, a study was conducted on digital mental health offerings for Ukrainians, the findings of which are detailed below.

On the National online platform for the development of digital literacy, "Action, Digital Education", two educational series were found that can also be added to our topic: the course series "Being close: a course on the basics of psychological support for educators and everyone who works with children" and the series "Psychological support for oneself and loved ones for civilians". These series are designed for individual learning.

Several digital resources were identified, including the Spokiy application (an initiative of a private IT company), the Psychological Support Service of Ukrainians (a union of specialists), and an educational series on psychological help and support (available on the national platform Diya. Digital Education of the Ministry of Digital Transformation). While each solution has unique features, they are not well-known among the target audience. For instance, none of the respondents were aware of these three digital mental health support options, indicating a lack of citizen awareness initiatives. This indicates an insufficient number of measures to inform citizens.

The Spokiy application, available for free download on smartphones, was developed for Ukrainians by the Lviv IT company Nerd zLab (Fig. 1). Its creators describe it as an application for meditation and psychological well-being. The company developed the application on its own initiative even before the war and later made it widely available. According to its description, the application offers features to learn meditation, overcome fear, reduce anxiety, and schedule appointments with specialist psychologists for free.


**Figure 1.** The Spokiy ("Calm") application by the IT company Nerd zLab

**Note:** screenshots of the application, taken in April 2023, with the interface and features relevant at that time

The Spokiy application led to the discovery of a psychological support service (Service of psychological support..., n.d.) for Ukrainians. This service, as stated on its website, is a community of professional psychologists, psychotherapists, and teachers who have come together to assist all residents of Ukraine in need of psychological support. More than 80 specialists provide free psychological help in crisis situations.

A follow-up study on digital solutions for Ukrainian citizens was conducted to gather relevant information for this study. As of August 2023, there is an urgent need for psychological and psychotherapeutic assistance for citizens at the state level due to the consequences of full-scale military aggression by the Russian Federation, which began in February 2022. Many different initiatives and educational programmes for psychologists have been launched.

The all-Ukrainian mental health programme, supported by the European Commission and other international organisations, is actively promoted by the first lady of Ukraine, Olena Zelenska, the wife of President Volodymyr Zelensky (Mental health, 2023). The programme includes specialist training, the creation of educational content for self-help and psychological education of citizens, and the establishment of regional psychiatric health centres as part of a joint project of the Ministry of Health and the World Bank.

**Stage 2. World experience with E-Mental-Health applications.** In the second stage of the study, an analysis of existing digital solutions from other countries for psychological assistance to citizens was conducted. Using a search in the Google Play and App Store online application stores, applications from the categories of mental health, mindfulness, and relaxation with the highest number of downloads and the highest-rated reviews were selected for analysis. 18 apps were analysed, including Selfapi, Novego, iFightDepression, Mindshine, Reflectly, VOS, Rootd, Calm, Headspace, BetterHelp, Moodnotes, Sanvello, Happify, Talkspace, 7 Cups, Youper, Woebot, and Spokiy. Figure 2 provides screenshots of some of the specified applications. All apps, except Spokiy, were developed in other countries, and only the VOS application offers Ukrainian among its available languages, but the semantic features indicate that it is merely a machine translation, lacking the nuances of a living language. This diminishes the level of trust and empathy that the applications aim to simulate. This further emphasises the need for the Ukrainian version or the main language. Among the examined applications, six have been Russified, making them more understandable for Ukrainians compared to other foreign languages, but this does not meet the modern needs of the state.

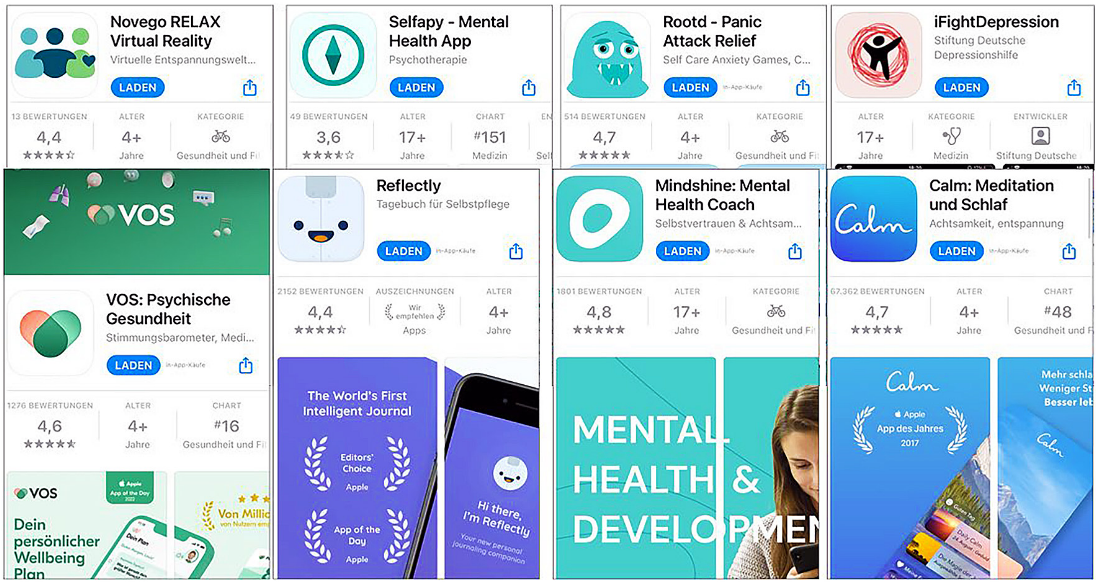


**Figure 2.** Examples of applications from the categories of mental health, mindfulness, and relaxation
**Note:** Google Play and App Store mental health applications with the most downloads and highest-rated reviews

Such digital solutions among applications belong to the E-Mental-Health category. This term refers to all digital offerings related to mental health. These include online therapy, health and psychology websites, and applications for installation on smartphones or tablets (Fig. 3). In Germany, for example, some programmes in the E-Mental-Health category are tested or certified by the Federal Institute for Pharmaceuticals and Medical Devices (Bundesinstitut für Arzneimittel und Medizinprodukte) (Digital Health Applications…, 2023). They belong to the DiGA category (Digitale Gesundheit Anwendung – Digital Health Applications). These applications are paid for, but insurance companies may cover the cost of the appropriate diagnosis. Examples include Selfapy, deprexis, and novego. There are also freely available applications that explain various mental phenomena and situations, offer various exercises, allow one to keep a diary of one's conditions, find specialists for therapy, and contact one's psychotherapist. For example, Moodgym or iFightDepression applications.


**Figure 3.** Classification of E-Mental-Health offers

The main advantage of digital solutions is that a person can get help before it is too late. Getting professional support immediately after recognising the need is not always possible in face-to-face meetings. For instance, in Germany, according to studies, the waiting time for therapy averages six months due to specialists' busy schedules (NAKO Health Study…, 2020). The application can offer initial self-help steps, such as during a panic attack, and provide contact details for an on-call specialist therapist.

In such cases, turning to digital programmes can serve as a temporary solution before seeking a specialist and a preventive measure to prevent situations from worsening. In some European countries, psychotherapy care programmes are prescribed by doctors and may be covered by health insurance (Jacobi *et al.*, 2016). Furthermore, not everyone who needs psychological help requires intensive work with a specialist. In some cases, individuals only need to listen to a lecture on a concerning topic, perform certain psychophysiological exercises, or receive information to correct their condition. Digital services are well suited for these purposes.

Another advantage of digital solutions for maintaining psychological balance is the relatively simple and quick access they provide. They can be downloaded to smartphones from application stores, are easy to use, and are available whenever needed. Moreover, these solutions can assist individuals in taking the initial step towards addressing their mental health. This is particularly beneficial for those who, due to various reasons, refrain from seeking help from traditional psychologists or psychotherapists. Such individuals may feel ashamed, fearful of opening up, or uncertain about whom to approach for assistance despite their need. For some individuals, confiding in an electronic device and sharing their problems feels easier, as they fear receiving negative judgment or facing bias from a live specialist.

One drawback of psychotherapeutic digital solutions can be the risk of incorrect diagnosis or problem definition. Identifying the cause or diagnosis is the initial step in therapy for both physical and psychological issues. If an application diagnoses or labels a problem, it does so based on user-provided data, which may be intentionally or unintentionally distorted, presented incorrectly, or incomplete. Furthermore, applications are software, not live professionals with years of experience, empathy, and expertise in a personalised approach. Receiving a diagnosis from an application could shock or confuse a person, potentially worsening their negative state. In such sensitive matters, trusting a live expert is often more appropriate.

Another drawback of digital solutions is the lack of empathy, personal connection, and live communication with a psychologist or therapist, which many consider essential in addressing their mental health issues. Without face-to-face contact with a trusted specialist, the ability to observe a person's non-verbal and extra-linguistic cues, which convey crucial information when working with mental states, is lost. While a digital device can record certain psychophysiological indicators (e.g., stress levels, blood pressure, blood oxygen saturation) even better than a human specialist, it cannot replace the comprehensive analysis of the overall condition. An application cannot provide feedback, empathetic support, or establish a general informational and emotional connection, which are often crucial for successful therapy, given that humans are social beings. When selecting a therapist, personal sympathy and trust in the specialist are crucial factors a digital solution cannot replicate.

An important benefit of applications is their ability to assume certain therapist functions or enhance them with routine tasks, such as reminding users about exercises, providing information, guiding meditation or affirmations, assigning tasks, prompting diary entries, monitoring stress levels, and assisting with relaxation techniques (Bühring, 2016). This provides a supportive effect in parallel with the therapy and helps to maintain the condition at the desired level. A therapist's work with a single client at this level may be challenging or unfeasible. Similarly, the outcomes of using an application or device independently can be valuable when collaborating with a psychologist or therapist. This is evident in tasks such as analysing changes in psychophysiological states, reviewing creative outputs, or examining diary entries. This can significantly increase the effectiveness of therapy and warn of pre-depressive states (Jacobi *et al.*, 2016).

A substantial disadvantage of using digital solutions for psychological balance may be the data protection issue (Zhang *et al.*, 2022). The disclosure of highly personal data, such as mental states or responses to specific stimuli and situations, including personal records like diaries, to outsiders or attackers, can lead to various harms, such as publishing personal information or exploitation. Therefore, the reliability of personal data protection plays a big role when choosing or creating a programme. This can be ensured either by specialised institutes or by application creators with a proven reputation and certification. Alternatively, a digital solution can be designed in a way that all personal and intimate information remains with the owner. For example, using a reminder to keep a diary in a physical notebook instead of writing in an application, thus avoiding the creation of a digital trail, or demonstrating a relaxation exercise without tracking and recording a person's psychophysiological data. The advantages and disadvantages of digital applications for psychological care given above are presented in Figure 4.

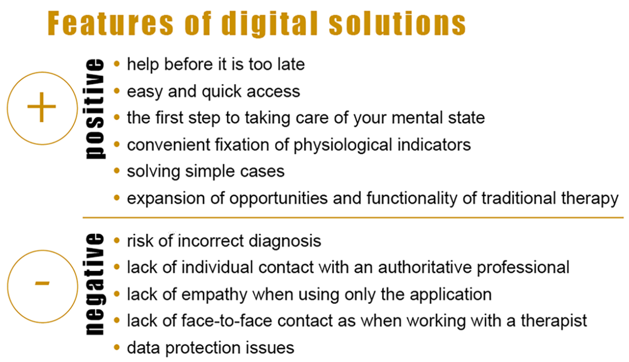


**Figure 4.** Advantages and disadvantages of E-Mental-Health offers

**Stage 3. The need for a Ukrainian psychological assistance applications**. The third stage of the study involved a survey and conversations with Ukrainians in evacuation regarding their psychological state and readiness to use digital applications for psychological help. Part of the results from the survey "My psychological state in evacuation", relevant to this study, is presented in Table 1 "The need for a digital application of psychological help". According to the survey of 115 respondents aged 17 to 60 who were evacuated to the federal state of North Rhine-Westphalia in Germany, 94% of respondents felt the need for a readily available application for psychological help. 75% noted that it should be an application created specifically for citizens of Ukraine, considering certain current specific features that distinguish Ukrainians from other people (current context). 48% of respondents emphasised the need for the possibility of working with a live specialist in addition to or without a digital solution. 23% are not ready to work with a psychologist, and two-thirds of them noted the presence of psychological problems. One-third of those who deny the possibility of turning to a specialist consider their psychological condition satisfactory. 35% of respondents would like to use a mental health application for self-knowledge or support of their condition.

**Table 1.** The need for digital applications for psychological assistance

| No. | Question | Number of "Yes" responses | Number of "No" responses | Not specified |
|---|---|---|---|---|
| 1 | Do you need a quick-access psychological help application? | 108 | 3 | 4 |
| 2 | Should it be an application created purposefully for citizens of Ukraine, considering the current context? | 86 | 20 | 9 |
| 3 | Would you like the option to work with a live specialist alongside or independently of a digital solution? | 55 | 23 | 37 |
| 4 | Are you ready to work with a psychologist? | 62 | 27 | 26 |
| 5 | Would you like to use a mental health application for self-knowledge or support? | 41 | 21 | 52 |

**Note**: a portion of the findings from the direct survey "My psychological state in evacuation", involving 115 Ukrainian citizens currently evacuated in the federal state of North Rhine-Westphalia, Germany, due to the military aggression of the Russian Federation in Ukraine

**Source**: prepared by the author based on the obtained research data

It should be noted that 94% of respondents confirmed the need to create a psychological help application for Ukrainians, but 23% of respondents are not ready to contact a live psychologist. Therefore, such applications can become a first step or a full-fledged help (depending on the case) for those who need psychological help but have barriers or prerequisites for contacting a psychotherapist. The circumstances and reasons for the presence of such barriers were not considered in this study.

Moreover, many Ukrainians are currently in other countries as a result of the evacuation, which also adds to the mental burden due to the need to adapt to other rules in a different language. Not everyone has the opportunity to contact specialists, and not everyone has sufficiently high-quality Internet access for online consultations. Therefore, an application downloaded to a mobile device can be an effective solution for psychological support in such circumstances.

**Stage 4. Desired capabilities of the psychological assistance application.** The fourth stage of the study consisted of an online survey of Ukrainian citizens regarding the desired features of psychological help applications and an analysis of the results. 158 citizens of Ukraine participated in this survey (Fig. 5), with 68.4% being women. 80% of the participants were young people aged 16 to 30, three-quarters of whom are currently in Ukraine. They expressed readiness to use applications for mental and emotional health designed for citizens of their country. More than half of the respondents (55.1%) emphasised the need to prevent the transmission of any of their private data or sensitive content.

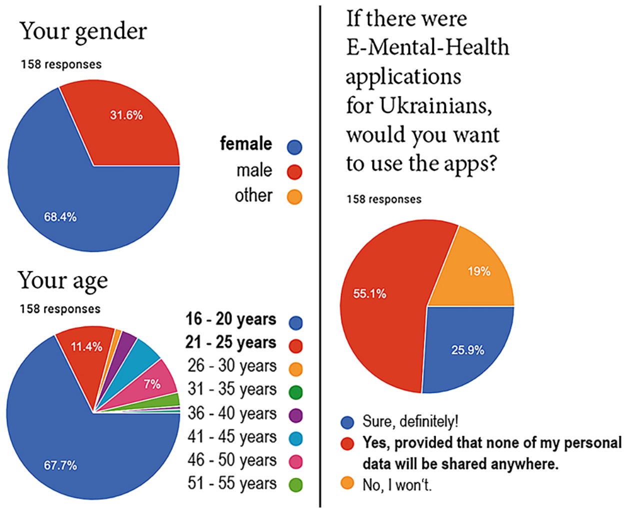


**Figure 5.** Respondents of the questionnaire "Ukrainians and digital services" and their need for the psychological support application

**Note:** on the infographic, the largest number of respondents' answers to the given questions is indicated in bold

The respondents were asked to mark what exactly should be in the psychological assistance application for Ukrainians, choosing or omitting sixteen possible features one by one. The proposed features were selected based on an analysis of the most common foreign applications for psychological support and mental health, a literature review, and recommendations from the German Federal Institute for Pharmaceuticals and Medical Devices (Bundesinstitut für Arzneimittel und Medizinprodukte) (Digital Health Applications..., 2023). These functions are designed to be beneficial both during military crises and in peacetime, helping to prevent mental overload and develop psychological awareness:

- psychophysiological measurements and analysis of these indicators;
- guided meditations for different themes and situations;
- psychological educational materials;
- testing (psychological assessment);
- art therapy;
- journaling;
- tracking and monitoring of emotional state;
- the option to connect with a psychologist or psychotherapist for online therapy sessions;
- self-help: exercises for emergency help during acute stress or a panic attack;
- affirmations (positive statements to tune into specific moods and thoughts);
- determination of a possible diagnosis;
- the possibility to ask questions (such as a chat with specialists);
- crisis intervention: hotline contacts, emergency contacts, or referrals to local mental health services in case of emergency or crisis situations;
- progress tracking and goal-setting;
- peer support and online contacts with them;
- an exclusively Ukrainian context: appeals aimed specifically at Ukrainian mentality and experience.

The answers are demonstrated in the infographic in Figure 6.

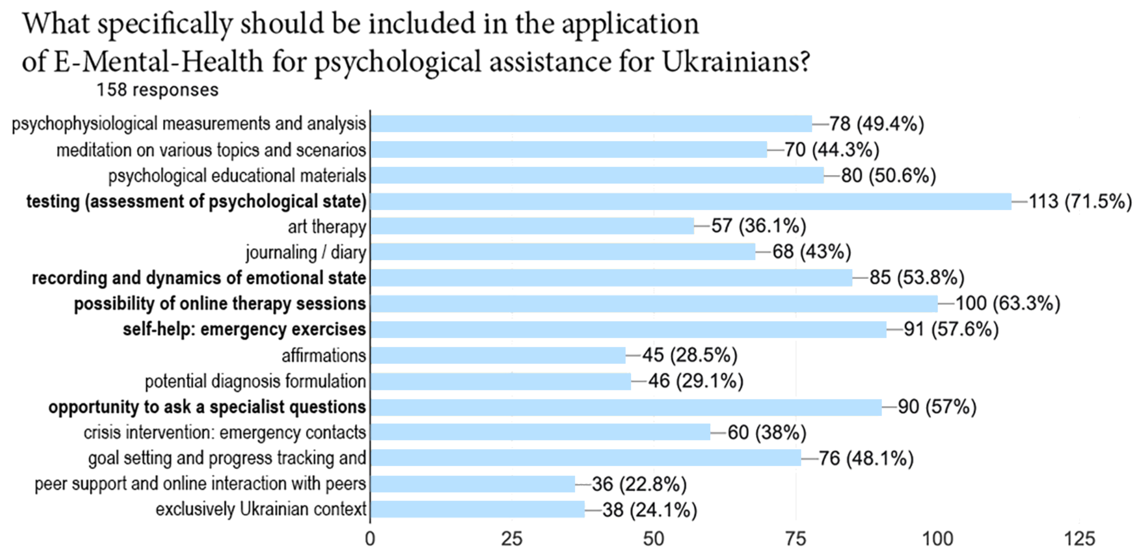


**Figure 6.** The selection of respondents to an online survey regarding mandatory features in the psychological support application for Ukrainians

**Note:** on the infographic, the five most important features according to respondents are indicated in bold

It is worth noting that at least 36% of the proposed features were selected as necessary, which allows recommending each one for inclusion in psychological support applications. The feature "Testing (assessment of psychological state)" received the most votes (it was chosen by 71.5% of respondents).

Furthermore, the top five most requested features were "The possibility of communication with a specialist psychologist or psychotherapist (online therapy sessions)" (57%), "Self-help: exercises for emergency aid during acute stress or a panic attack (57.6%), "The possibility to ask questions (like a chat with specialists)" (57%), and "Tracking and monitoring of emotional state" (53.8%).

These results suggest that such a choice is likely due to the state of crisis and post-traumatic stress disorder of the study participants, which is characteristic of most citizens of Ukraine in the aftermath of the war. The feature "Support of peers and online contacts with them" received the lowest number of votes (22.8%, followed by "Exclusively Ukrainian context" (24.1%). This is probably because there is a satisfactory level of communication among Ukrainians, both within the country and in diasporas, facilitated by messengers and other modern technologies.

**Stage 5. Recommended features of the E-Mental-Health application.** In the fifth stage of the study, a list of features that should be included in the psychological assistance applications was created (Webelhorst *et al.*, 2020). The recommendations were made considering the results of the previous stages of the study and current trends in the adaptation of citizens evacuating to the European Union (Romanova *et al.*, 2022) and staying in Ukraine.

Below are possible features of digital services for mental health, drawn from the global digital community's experience and a review of professional literature (Burger *et al.*, 2020), particularly in the use of the most prevalent applications in this field. It is essential to highlight the topics and features that are sensible to incorporate into mental health applications, as proposed in this study and detailed in Figure 7.


**Figure 7.** Recommended features of the E-Mental-Health application

The following topics and services can be included in the category of electronic mental health programmes:

*1. Mental health assessment:* The application can offer users tools to evaluate their mental health, which may include questionnaires to assess well-being or various mental health conditions such as depression, anxiety, or post-traumatic stress disorder.

*2. Self-help:* The application may offer self-help exercises or activities, including psychoeducation, self-directed cognitive behavioural therapy (CBT), mindfulness exercises, relaxation techniques, and stress management strategies.

*3. Mood tracking and monitoring:* The application can allow users to track and monitor their mood over time, providing information about their emotional well-being and identifying patterns or triggers for mood swings.

*4. Virtual therapy sessions:* The application may offer virtual therapy sessions, including one-on-one counselling or group therapy, conducted via video call or chat with licensed mental health professionals.

*5. Peer support and online messages:* The application can provide these opportunities for people who want to connect with others or may be experiencing similar mental health issues and need a sense of belonging and support from communities.

*6. Crisis intervention and emergency resources:* The application may provide crisis intervention services, including hotline numbers, emergency contacts, and links to local mental health services, in case of emergency or crisis situations.

*7. Educational and informational resources:* The application can contain psychological research and information about various mental health conditions, coping strategies, and self-help techniques.

*8. Personalised recommendations:* The application may offer personalised mental health recommendations based on user-reported symptoms, preferences, and needs.

*9. Progress tracking and goal setting:* The application allows users to work towards mental health-related goals, which increases motivation and accountability.

10. *Feedback mechanism:* The application could include a mechanism which allows users to provide information, suggestions and feedback about the content, usability, and effectiveness of the application to continuously improve its features.

*11. Tools for self-reflection and self-analysis*: the application should offer the possibility of journaling in various forms, for example, verbal, audio recording, visual (photos or drawings), and metaphorical. These options must maintain confidentiality, with careful consideration given to data storage, whether on the device, servers, or solely as instructions without a digital trace. Creating a mental health application targeting Ukrainians requires considering several features of the contemporary Ukrainian context (Botvyn *et al.,* 2022) to ensure its effectiveness.

*Localisation:* the application must be localised in the Ukrainian language, with culturally relevant content and links relevant to Ukrainians. This includes using language, cultural nuances, and examples that resonate with the Ukrainian population.

*Accessibility*: The application should be developed considering the various needs and accessibility requirements of Ukrainians, including those with visual, hearing, or motor impairments. Given the aftermath of war, including numerous injuries, wounds, and disabilities, these criteria are particularly crucial. This can include features such as text-to-speech, large font options, and easy-to-navigate interfaces to ensure inclusivity and usability for all users.

*Authentic content:* the programme should provide content specifically tailored to the needs and mental health issues Ukrainians face. This may include information about common mental health conditions in Ukraine, cultural factors affecting mental health, and specific resources and services available in Ukraine to support mental health.

*Local resources:* the application should provide information about local mental health resources in Ukraine, psychiatric clinics, therapists, support groups, and crisis hotlines to connect users with professional support as needed.

*User privacy and data security:* The application must prioritise user privacy and data security, including clear instructions on how user data is collected, used, and stored. It is necessary to ensure compliance with the relevant rules and laws on data protection in Ukraine. This requirement is one of the most important when it comes to sensitive content (for example, diaries or other confidential data).

*User engagement and tracking:* The application should include features that promote consistent interaction with this specific user group and monitor their mental health progress.

It is important to involve mental health professionals, stakeholders, and potential users from Ukraine in the development and testing stages to ensure the application is relevant, effective, and culturally acceptable to the Ukrainian population. The integration of logotherapy methods (Sun *et al.,* 2022), existential therapy (Bland, 2022), and art therapy (Shukla *et al.*, 2022) can significantly enhance the content of digital mental health solutions, along with facilitating communication with specialists in these fields. During the interview at the third stage of the survey, 65% of the answers were received, where the search or transformation of meanings and value systems played an important role. It can also be advised to consider using art therapy methods, which enable gentle yet profound exploration through creative processes and methods. It is important to note that both Viktor Frankl's logotherapy and art therapy demonstrated their effectiveness in addressing mental and psychophysiological disorders arising from crises during and after World War II (Bushkin *et al.,* 2021). This experience, which is also connected to wartime, can be adapted for working with Ukrainian citizens and further refined for use with digital tools, considering the recommendations above. This will allow reaching more customers and patients than by using conventional technologies only. Art therapy is a widely used method among psychologists and psychotherapists in Ukraine (Ivzhenko *et al.*, 2022), as evidenced by the significant participation of specialists in events like the "Art-Practice" festivals and training programmes organised by educational institutions such as "Osnova" ("Osnova" – the international training...n.d.) and the Institute of Developmental Psychology MAXimum (n.d.). The attendance of various training programmes further supports this and events focused on art therapy conducted by different teachers and educational organisations. Logotherapy did not have an official representation in Ukraine until 2023. However, at the beginning of that year, the Logotherapy Association initiated online training for Ukrainian specialists and translated materials into Ukrainian (Ukrainian association of logotherapy..., n.d.).

This study proposed to investigate the effectiveness of using digital tools from the E-Mental Health category for teenagers and young people in Ukraine. Based on professional research findings (Robinson *et al.*, 2016) and the widespread use of digital technologies by young people, coupled with the presence of Ukrainian children and adolescents outside Ukraine due to the evacuations of 2022-2023, the demand for such tools and their benefits at both individual and state levels can be significant.

Further research and re-analysis of the study are encouraged by experts due to the variability and dynamism of the digitals landscape (Aly, 2020), along with rapid political and social transformations (Pizhuk *et* *al.*, 2022), which suggest the emergence of numerous new digital services and the need for psychological assistance for citizens of Ukraine. Accordingly, the results of this study may need to be updated, supplemented, or adjusted.

## CONCLUSIONS

Thus, the following conclusions can be drawn following the above-mentioned stages of the study:

1. The lack of quickly accessible applications explicitly created for Ukrainians, considering the current needs, context, and characteristics of this target group, was disclosed. One digital solution for the psychological support of citizens was found: the Spokiy application, created in Ukraine. This application allows communication with psychotherapists, meditation, and self-help tips and exercises. Other digital offers, in addition to mobile applications, from the E-Mental-Health category for citizens of Ukraine, such as the National Mental Health Program, were identified. It can be recommended to create psychological help applications as an auxiliary tool for professionals and citizens.

2. There are foreign applications of the E-Mental-Health category for psychological and psychotherapeutic assistance to users. Some programmes are available by prescription; others are in the public domain. The features and capabilities of the most popular applications from the E-Mental-Health and "Mindfulness and Relaxation" categories with the highest user ratings were analysed. Only one of the applications (VOS) has a Ukrainian-language version, which is a translation that does not correspond to the usual wording in live use. Therefore, at the time of writing this study, only one Ukrainian-language application was found – "Spokiy".

The strengths and weaknesses of applications for psychological assistance were analysed and the following conclusions were drawn.

◊ Digital solutions are readily available and can provide psychological first aid before it is too late.

◊ Applications for mental health and psychological balance are easy to use and unbiased. For individuals who require professional help but have not yet sought it, programmes can assist them in taking the initial step towards addressing their conditions.

◊ In establishing the diagnosis or the cause of the problem, programmes can be unreliable.

◊ While a digital solution cannot substitute a human expert, it can assume certain functions to assist in or facilitate access to the expert.

◊ Applications and devices enhance the potential for psychological balance between sessions with a therapist or psychologist.

◊ Safeguarding personal data concerning intimate aspects such as psychological states necessitates a very cautious approach to accessing the digital footprint.

3. The need for a Ukrainian psychological assistance application was identified through an analysis of survey results and conversations with Ukrainians in evacuation regarding their psychological well-being and willingness to utilise digital solutions for psychological support. 75% of respondents expressed their readiness to use E-Mental-Health applications designed for Ukrainian citizens, considering the context of martial law, losses, and forced evacuation. 48% of respondents highlighted the importance of being able to consult with a live specialist, either alongside or independently of a digital solution.

4. The need of Ukrainian citizens for digital solutions for psychological balance and mental health has been established. It is noted that digital services are not a full-fledged substitute for working with a live psychotherapist but can be an auxiliary tool, taking over some activities of a specialist. An online survey of Ukrainian citizens regarding the most important features of psychological help applications revealed the desired capabilities of the application. Almost three-quarters of respondents (74.1%) indicated their willingness to use such applications. More than half of the respondents (55.1%) emphasised that they will use applications only if none of their personal data and sensitive content will be transmitted anywhere through the application.

5. Based on the analysis of common digital solutions of other countries in the mental health category and the results of two questionnaires of Ukrainian citizens regarding the desired capabilities of applications, the following recommendations are provided for E-Mental Health applications. A multi-functional digital service (application) should include the following capabilities: mental health assessment, self-help tools, mood tracking and monitoring, virtual therapy sessions, peer support and online messaging, crisis intervention and emergency resources, educational and informational materials, personalised referrals, progress tracking and goal setting, feedback mechanisms, and tools for self-reflection and self-analysis. In addition to this list of features, it is worth considering a more detailed list of possible functions as identified in the online survey conducted during the fourth stage of the study.

Based on the obtained results, it is necessary to indicate the prospects for further study on applications for the mental health of Ukrainian citizens. It is essential to create or enhance digital services to enable quick and convenient access to psychological support applications. This tool can serve as an auxiliary aid when working with psychologists or be used independently in mild cases or as a preventive measure to maintain the user's psychological well-being. Existing applications do not consider the current context and cannot fully cover the needs of Ukrainians. The findings of this study are planned to be transferred to representatives of the Ministry of Digital Transformation and the National Mental Health Program for possible use in providing psychological support for Ukrainian citizens living in Ukraine and abroad. It is also planned to use the obtained data in the work of specialists at the Faculty of Psychology.

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## CONFLICT OF INTEREST

None.

## REFERENCES

[1] "Osnova" – the international training company. (n.d.). Retrieved from https://www.vtkosnova.com/uk/.
[2] Aly, H. (2020). Digital transformation, development, and productivity in developing countries: Is artificial intelligence a curse or a blessing? *Review of Economics and Political Science,* 7(4), 238-256. doi: 10.1108/REPS-11-2019-0145.
[3] Bland, A.M. (2022). A 15-year progress report on the presence of humanistic/existential psychology principles in mental health outcome measurement: Thematic discourse and summative content analyses. *Journal of Humanistic Psychology*, 0(0), 1-36. doi: 10.1177/00221678221077475.
[4] Botvyn, T., Aleksandrova, M., Krymets, L., Dobrovolska, R., & Rudenko, O. (2022). Philosophical comprehension of the formation and development of Ukrainian culture in the context of military realities: The geopolitical aspect. *Amazonia Investiga,* 11(58), 84-92. doi: 10.34069/AI/2022.58.10.9.
[5] Bühring, P. (2016). E-Mental-Health: "The course has been set." *Deutsches Ärzteblatt,* 113(43), 1908-1909.
[6] Burger, F., Neerincx, M.A., & Brinkman, W.P. (2020). Technological state of the art of electronic mental health interventions for major depressive disorder: Systematic literature review. *Journal of Medical Internet Research*, 22(1), article number 12599. doi: 10.2196/12599.
[7] Bushkin, H., van Niekerk, R., & Stroud, L. (2021). Searching for meaning in chaos: Viktor Frankl's Story. *Europe's Journal of Psychology,* 17(3), 233-242. doi: 10.5964/ejop.5439.
[8] Buzarov, A. (2023). Tendencies of adaptation and integration of immigrants from Ukraine in the European Union after the aggression of the russian federation against Ukraine. *Baltic Journal of Economic Studies,* 9(2), 73-90. doi: 10.30525/2256-0742/2023-9-2-73-90.
[9] Digital Health Applications (DiGA). (2023). Retrieved from https://diga.bfarm.de/de.
[10] Institute of developmental psychology MAXimum. (n.d.). Retrieved from https://iprmaximum.com.ua/.
[11] Ivzhenko, I., Podolska, G., Demchenko, I., Dzhyhun, L., Lytvynenko, V., & Kacherova, O. (2022). Art therapeutic techniques to provide psychological assistance. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience,* 13(4), 68-80. doi: 10.18662/brain/13.4/376.
[12] Jacobi, F., *et al*. (2016). Erratum to: Mental disorders in the general population. Study on adult health in Germany and its supplementary module "Mental Health" (DEGS1-MH). *Der Nervenarzt,* 87, 88-90. doi: 10.1007/s00115-015-4458-7.
[13] Mental health. (2023). Retrieved from https://www.ukrinform.ua/tag-mentalne-zdorova.
[14] NAKO Health Study: Increased psychological distress due to the COVID-19 pandemic. (2020). Retrieved from https://www.gesundheitsforschung-bmbf.de/de/nako-gesundheitsstudie-starkere-psychische-belastung-durch-corona-pandemie-12564.php.
[15] Pizhuk, O., Lazebnyk, L., & Mamonova, G. (2022). Digitalization's effect on the sectoral structure change in the economy: A comparative analysis of Ukraine and selected countries. *Comparative Economic Research Central and Eastern Europe,* 25(2), 21-43. doi: 10.18778/1508-2008.25.11.
[16] Robinson, J., Hetrick, S., Cox, G., Bendall, S., Yuen, H.P., Yung, A., & Pirkis, J. (2016). Can an Internet-based intervention reduce suicidal ideation, depression, and hopelessness among secondary school students: Results from a pilot study. *Early Intervention in Psychiatry,* 10(1), 28-35. doi: 10.1111/eip.12137.
[17] Romanova, I., Syniakova, V., Kononova, M., Melnychuk, M., Reva, M., & Nemesh, V. (2022). Social assistance and psychological counseling in Ukraine against the backdrop of russian armed aggression. *Amazonia Investiga,* 11(55), 265-272. doi: 10.34069/AI/2022.55.07.28.
[18] Ronzhes, O. (2022). The role of digital technologies in the adaptation of citizens of Ukraine to military aggression by the russian federation. *Scientific Studios on Social and Political Psychology,* 50(53). doi: 10.33120/ssppj.vi50(53).598.
[19] Service of psychological support for Ukrainians. (n.d.). Retrieved from https://sppu.com.ua/.
[20] Shukla, A., Choudhari, S.G., Gaidhane, A.M., & Quazi Syed, Z. (2022). Role of art therapy in the promotion of mental health: A critical review. *Cureus*, 14(8), article number 28026. doi: 10.7759/cureus.28026.
[21] Sorkin, D.H., *et al.* (2021). Rise in use of digital mental health tools and technologies in the United States during the COVID-19 pandemic: Survey study. *Journal of Medical Internet Research, 23*(4), article number 26994. doi: 10.2196/26994.

[22] Sun, F.K., *et al.* (2022). The effects of logotherapy on meaning in life, depression, hopelessness, and suicidal ideation, in patients with depression: An intervention study. *Perspectives in Psychiatric Care*, 58(4), 1891-1899. doi:10.1111/ppc.13003.
[23] Ukrainian association of logotherapy and existential analysis. (n.d.). Retrieved from https://alea.in.ua/.
[24] UNICEF. (n.d.). UNICEF report on the situation of children in the world 2021. Retrieved from https://www.unicef.de/_cae/resource/blob/249178/df8537c4c9c2106922f49da4884e82b4/zusammenfassung-sowcr-2021-data.pdf.
[25] Uretii, O. (2022). *Psychological assistance during the war: Where to turn*. Retrieved from from https://armyinform.com.ua/2022/06/15/psyhologichna-dopomoga-pid-chas-vijny-kudy-zvernutys/.
[26] Van Assche, E., Bonroy, B., Mertens, M., Van den Broeck, L., Desie, K., Bolinski, F., Amarti, K., Kleiboer, A., Riper, H., & Van Daele, T. (2022). E-mental health implementation in inpatient care: Exploring its potential and future challenges. *Frontiers in Digital Health*, 4, article number 1027864. doi: 10.3389/fdgth.2022.1027864.
[27] Webelhorst, C., Jepsen, L., & Rummel-Kluge, C. (2020). Utilization of e-mental-health and online self-management interventions of patients with mental disorders – a cross-sectional analysis. *PLoS One*, 15(4), article number 0231373. doi: 10.1371/journal.pone.0231373.
[28] Zhang, J., Yang, A., & Shuaishuai, F. (2022). Data protection of internet enterprise platforms in the era of big data. *Journal of Web Engineering*, 21(03), 861-878. doi: 10.13052/jwe1540-9589.21314.

## Цифрові додатки як інструменти психологічної адаптації громадян до змін

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**Анотація**. Внаслідок військової агресії російської федерації на території України, громадяни переживають гострий стрес, інші ментальні й емоціональні навантаження та психічні розлади. Цифрові технології можуть служити інструментом для покращення ментального здоров'я та психологічної підтримки громадян, особливо для тих, хто має обмежений доступ до прямого контакту з психотерапевтом, шляхом розробки застосунків для психологічної адаптації та підтримки ментального балансу.Метою роботи було визначити наявність,оптимальний зміст мобільних додатків для ментального здоров'я та психологічної рівноваги українців. Здійснено пошук та аналіз наявних рішень з категорії E-MentalHealth (цифрові сервіси для ментального здоров'я) в Україні та інших країнах. Проведено емпіричне дослідження їх функцій та сформована пропозиція оптимального змісту для мобільних додатків як допоміжних інструментів для роботи з психотерапевтом-фахівцем або для психологічної допомоги громадянам під час військового стану. Для оцінки потреби у таких додатках, було проведено опитування «Мій психологічний стан в евакуації» серед респондентів, що перебувають за межами країни. Для визначення найважливіших функцій серед переліку сформованої пропозиції оптимального змісту додатку було використано онлайн-анкетування «Українці та цифрові сервіси». В ньому взяла участь переважно молодь, що залишилась в країні під час військової агресії. На підставі отриманих результатів, емпірично обґрунтовано потребу громадян України, як тих, що залишились в країні під час бойових дій, так і тих, хто перебуває в евакуації в інших державах, в мобільних застосунках для ментального здоров’я та психологічної допомоги. Надано рекомендації щодо обов'язкових функцій, які можна розглядати як технічні вимоги для розробки або вдосконалення багатофункціонального додатку в категорії E-Mental-Health

**Ключові слова:** цифрова компетентність; адаптація; стрес; медіаграмотність; додатки для психологічної допомоги; E-Mental-Health; цифрові технології у воєнному конфлікті; цифрове суспільство

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# Emotional intelligence and its impact on human life in the global world

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**Abstract.** Everyone strives to be successful in their lives, but emotions often become the basis for destructive behaviour. The development of emotional intelligence allows people to understand and manage their emotions, which enables them to successfully adapt to change and build positive social interactions. The purpose of this study was to investigate the impact of emotional intelligence on human life in the context of personal and professional success. The study employed general scientific methods: analysis, synthesis, comparison, classification, generalisation, and formalisation. Different approaches to the interpretation of the term "emotional intelligence" were analysed. It was found that there is no unified approach to the definition of this term, but scientists build the concept of emotional intelligence considering four aspects of the human psyche in relation to emotions: self-management, self-awareness, social awareness, and control. The author also considered the history of the development of emotional intelligence as a category, which is very intensive in terms of understanding this concept and its research. It was found that throughout life, a person can develop their emotional intelligence, since it is not well-established from birth, but can be developed. It was argued that emotional intelligence does not depend on age and professional field of activity. The influence of developed emotional intelligence on the participants of the educational process, including teachers, students, and heads of educational institutions, was considered. The findings of this study can be used by researchers for further analysis of the term "emotional intelligence" and its impact on human life, by teachers for the development of teaching materials, and by students to get acquainted with the theory of this topic

**Keywords:** emotions; age groups; professional sphere; control; self-awareness; understanding; management

## INTRODUCTION

Socio-economic transformations and globalisation processes in the modern world have a direct impact on people. Previously, researchers focused more on analysing a person's logical thinking and their ability to cope with the impact of the above factors suing knowledge and skills. However, the ability to manage one's own emotions to overcome the impact of these factors is now becoming increasingly important. The study of human emotional intelligence reveals the knowledge of how to understand one's own emotions and the emotions of other people and, based on this knowledge, build effective behaviour that can help a person achieve their goals. This creates the basis for the development of a person as an individual and can help to establish interactions in personal and professional life. That is why the subject of this study is relevant and appropriate.

The problematic of the study is that despite the considerable number of scientific papers devoted to emotional intelligence, its connection with certain aspects of life is outlined from the standpoint of one professional

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group chosen by a person, and it appears that the review of the impact of emotional intelligence on a person's life in terms of their social relationships and personal life is insufficiently covered. It is also useful to compare different specialities, professions, and age groups to see the impact of emotional intelligence in terms of social effectiveness or ineffectiveness of a person.

N. Lavrychenko (2022) believes that the category of "socio-emotional intelligence" is necessary for Ukrainian pedagogy and the development of the educational system in the New Ukrainian School. A scientist combined these definitions and linked them to the conceptual foundations of the New Ukrainian School, which allowed her to give a place to methods of developing socio-emotional intelligence in the modern educational process. This correlation is required because of the influence and connection between social and emotional intelligence. The latter should be distinguished as a separate category for further research.

L. Derkach (2023) studies the relationship between emotional intelligence in primary school children. The researcher believes that the development of emotional intelligence of younger students is necessary because it enables the child to regulate their emotions and feelings more correctly in the future, to adequately perceive various situations both in everyday life and in school activities. Furthermore, this ability allows children to build relationships more correctly and resolve conflicts using good reasoning.

S. Derevianko (2016) defines emotional intelligence as a separate phenomenon and investigates it from the standpoint of understanding, management, and development. However, the impact of emotional intelligence on human life has not been covered. Yu. Asieieva *et al.* (2021) investigate emotional intelligence from the standpoint of its relationship with leader effectiveness. They interpret emotional intelligence as a factor that has a substantial impact on the effectiveness of a leader's actions. The findings of these researchers suggest that if a person has a positive attitude towards the work they are doing and a belief in a positive outcome, behavioural styles emerge that demonstrate the most effective management of cases or subordinates, depending on the individual case. These researchers note the presence of a direct link between an effective form of leadership and the ability to manage the emotions of others.

Ya. Raievska & K. Andriushchenko (2021) study emotional intelligence from the perspective of its impact on human professional activity, specifically, employees of the state employment service. According to researchers, stimulating the development of emotional intelligence for effective interactions in professional and social spheres entails training in the development of emotional intelligence (training sessions and support), as researchers emphasise that emotional intelligence can develop at any time of life. However, it needs to be further clarified how the proposed methods would affect the professional and personal lives of employees. The purpose of the present study was to consider the positive and negative effects of emotional intelligence of an individual in terms of the effectiveness or ineffectiveness of their interactions with others.

## MATERIALS AND METHODS

The main tools and methods used to cover the subject are theoretical research methods, which helped to cover and substantiate the more profound and substantial aspects of the phenomenon under study. This helped to create a holistic description of emotional intelligence and highlight its impact on human life. Using the methods of analysis and synthesis, the key concepts and definitions were considered, including "emotional intelligence", "impact of emotional intelligence", "components of emotional intelligence". The use of such a scientific method as analysis made it possible to consider the categories under study from the standpoint of individual components.

The study also analysed the changes in the concept of emotional intelligence as a scientific category. Such methods as classification and comparison allowed dividing the phenomenon under study into classes, groups, and types. Classification was used to compare the types of intelligence that exist in the descriptions of scientific studies, which include rational intelligence, social intelligence, spiritual intelligence. This method was also used to compare different formulations of the definition of emotional intelligence, which define it as an "ability", "capability", "component", "set", "component of the psyche".

The author classifies and defines the properties of emotional intelligence as a protective factor in building a prosperous life of a person who should, first of all, be socially active and stress-resistant. Using synthesis, which helps to investigate the object under study in its integrity and mutual connection, the functional connections and dependencies between the level of development of emotional intelligence and social relationships of people of different professions and ages were identified and examined. The combination of such scientific methods as analysis and synthesis guarantees an objective level of cognition in studying human emotional intelligence. This approach also shows the integrity of contradictions regarding their relationship with human life, and changes in the latter depending on the development of emotional intelligence.

The following specialities and professions were included in the review: legal, pedagogical, and medical, as well as civil servants, workers, and managers. The study also used this method to examine the impact of emotional intelligence at each stage of a person's life: childhood (1-12 years), adolescence (13-20 years), early adulthood (21-30 years), and maturity. Using the mental decomposition, the study identified the signs of emotional intelligence, its properties and attitudes. This method also made it possible to analyse each part separately and to do so within the framework of the whole. This study also employed the method of generalisation, which helped to highlight and organise the experience and achievements of scientists in determining the impact of emotional intelligence on a person's professional and personal life in the modern world. This method was also used to investigate the impact of emotional intelligence on the pedagogical process and all its participants: teachers, students, and school administrators.

## RESULTS

The theory of emotional intelligence has a brief history, as emotions and intelligence were opposed to each other, and only in the second half of the 20th century did theories emerge that emotions do not interfere with rational decision-making, but rather can help a person interact effectively with others. A theory of emotional intelligence was proposed (Owan, 2022). This theory is based on work on social and personal intelligence. Scientists believed that emotional and social intelligence are subsets of personal intelligence, which consist of two factors: intrinsic and interpersonal intelligence. They coined the term "emotional intelligence" and defined it as a set of skills that are hypothesised to facilitate the accurate assessment, expression, and regulation of emotions in oneself and others, as well as the use of feelings to motivate one to achieve excellence in one's life. Accurately assessing one's own and others' emotions and includes verbal (speech) and non-verbal (facial expressions, body language) communication as a key means of understanding what emotions are being assessed and expressed. Evaluating and expressing one's own emotions involves the ability to learn, analyse, and build logical connections based on these emotions.

M. Avhustiuk (2021) considers emotional intelligence to be one of the key components of a person's life, a multidimensional and controversial phenomenon in terms of emotional awareness and their regulation. J. Imperial *et al.* (2021) define emotional intelligence as a person's ability to recognise personal feelings and emotions of others, as well as to manage emotions in oneself and in relationships with others. These researchers have conducted studies that link leadership qualities and the level of emotional intelligence development. It was established that effective leadership requires more than just cognitive intelligence; it requires the development of emotional intelligence. Progress begins with the perception of emotions, which represent the most basic emotional skills of intelligence.

The concept of emotional intelligence has been evolving, and in 2016, the scientist S. Derevianko (2016) proposed the following definition of this concept: it is a cognitive ability that provides analysis of emotions and their use to improve thinking, which may include the ability to accurately distinguish emotions to stimulate thinking, understand and consciously regulate emotions, which contributes to emotional and intellectual growth.

According to E. Riego de Dios (2020), emotional intelligence is a set of competencies that demonstrate the ability to recognise, understand, and manage behaviour, mood, and impulses. The scientist characterised emotional intelligence as a perception of how well a person understands, regulates, and expresses emotions to adapt to the environment and maintain well-being. Emotional intelligence is also the ability to perceive emotions, use them to improve thinking, understand, label, and regulate emotions in oneself and others.

There are scientists who do not distinguish the category of emotional intelligence and compare it with other categories: rational intelligence, social intelligence, spiritual intelligence (Fig. 1). D. Mendoza Velazco *et al.* (2018) believe that there are two minds: one rational and one emotional, i.e., one thinks and the other feels. These two minds, the emotional and the rational, which are semi-independent faculties, mostly operate in perfect harmony, maintaining the balance or equilibrium between them. Emotions nourish and enrich the activity of the rational mind, while the rational mind purifies and regulates the influence of emotions. In this sense, the development of competences related to emotional intelligence arguably has a positive impact on social, academic, and employment aspects.

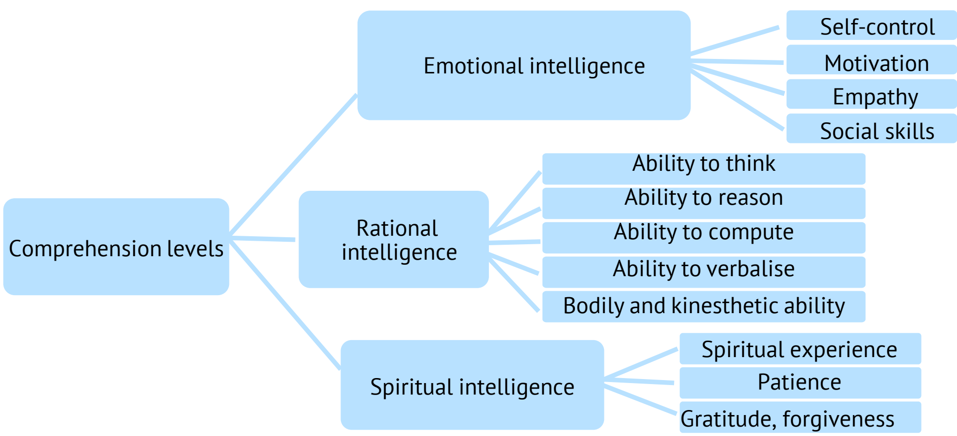


**Figure 1.** Categories of human intelligence
**Source:** compiled by the author of this study based on V. Priskillaa (2020)

H. Lavrychenko (2022) believes that in Ukraine, emotional and social intelligence have attracted the attention of educators, researchers, and practitioners at the stage of development and implementation of the New Ukrainian School concept. The scientist notes that Ukrainian scientists and educators prefer research where emotional and social intelligence are separate, independent objects of study, although in the context of the development of emotional and social abilities of an individual, ideas of their interconnection and mutual influence may appear. In the context of the present study, emotional intelligence is considered as a component of the human psyche that ensures the perception, understanding, control, and evaluation of emotions, while distinguishing between them and using the information received to guide one's thoughts and actions. Human emotional intelligence is widely studied for reasons of its applied nature. Knowledge of how emotional intelligence affects human life in the professional and personal spheres is remarkably relevant. Table 1 shows the different professional areas that have been studied by researchers in the context of the relationship with human emotional intelligence.

**Table 1.** The impact of emotional intelligence based on occupation

| No. | Profession | Impact |
|---|---|---|
| 1 | Legal specialities | The development of emotional intelligence is vital in the field of law, as lawyers are faced with resolving conflicts between two parties in their work. R. Sutton (2021) argues that in developing emotional intelligence, one must start with understanding oneself and developing a better understanding of oneself as a professional lawyer, negotiator, or mediator. |
| 2 | Pedagogical specialities | The study proved the existence of a strong positive relationship between developed emotional intelligence and active citizenship of teachers. A scientist has concluded that the success of a teacher in educational activities depends on a prominent level of civic engagement and developed emotional intelligence (Meniado, 2021). Teachers need to understand all the components of emotional intelligence, which is essential for the learning and teaching process, as well as a clear understanding of the contemporary emotional issues faced by students (Mustaffa, 2018). A teacher with high emotional intelligence will emphasise good behaviour in their students. An emotionally resilient teacher is the foundation of any educational programme (Agarwal, 2020). |
| 3 | Medical specialities | A range of studies have examined the emotional intelligence of medical staff. The analysis of the experimental data showed a positive prognosis in terms of efficiency and well-being at work with a sufficient level of emotional intelligence. Such people can better perceive the emotions of others, and this also has a positive impact on adaptation in the professional sphere due to the ability to manage their own emotions. The study also showed that such healthcare workers have fewer manifestations of depression. This helps to reduce negative behaviour, reduces disputes between medical staff and patients, and generally improves the comfort of work. In the work of a nurse, having a developed emotional intelligence is aimed at relieving tension and discomfort that can be caused by contradictions between nurses and patients by smoothing out their own emotions. When communication with patients is increased, nurses' ability to express themselves in communication is effectively realised and their satisfaction with communication increases (Li *et al.*, 2021). |
| 4 | Civil servants | Researchers Yu. Asieieva *et al.* (2021) conducted a study among civil servants of various levels. The results demonstrate the ability of a leader with developed empathy to positively influence the emotions of their subordinates and seek solutions to issues through synergy and interconnection. A leader who has the skills to manage their own emotions can motivate themselves to succeed and achieve better results. It is the emotional intelligence of the leader that enables them to change the organisational culture through the implementation of the principles of empathy, mutual development, and mutual improvement. |
| 5 | Workers | According to N.F. Andrabi & R.A. Rainayee (2020), properly managed emotions not only foster innovation and increase productivity of individuals, teams, and organisations, but also increase trust and loyalty. |
| 6 | Managers | J.C. Meniado (2021) found that empathy develops at a much faster pace when a person has a sufficient level of emotional intelligence. In addition, according to Yu. Asieieva *et al.* (2021), an effective leader had a sufficient level of development of emotional intelligence of effective leadership and, therefore, could interact more effectively with subordinates and establish work processes. |

**Source**: developed by the author of this study based on the results of the literature search

Some scientists describe the negative consequences of underdeveloped emotional intelligence. According to T. Selvan (2020), ignoring emotional intelligence leads to a decline in intellectual abilities at a time when frustration, anxiety, or helplessness take over. Such emotional states cause inconsistencies in the rhythmic and electrical activity of the brain and heart, reducing neurological efficiency. This is one of the reasons why smart people can take rash actions. When a key relationship is stressed, broken, or disrupted, it affects the body and mind. People experience headaches and psychosomatic diseases of many types. Their minds often become depressed, unfocused, and scattered. They lose the ability to think abstractly, thoroughly, analytically, and creatively. The spirit also becomes depressed and confused. People often feel helpless, hopeless, victimised, and sometimes so despondent that they develop suicidal behaviour. Therefore, it is vital to constantly develop relationships with other people and oneself (Selvan, 2020).

Emotional intelligence is essential at every stage of life. It helps children to adapt to the world, and young people to establish relationships with their peers and improve their studies. For mature people, developed emotional intelligence helps them make informed and effective decisions at work, as well as build their own family and personal life (Table 2).

**Table 2.** The impact of emotional intelligence at different stages of human life

| No. | Stages of life | Impact of emotional intelligence |
|---|---|---|
| 1 | Childhood (1-12 years) | Emotional intelligence is important even at an early age. This is confirmed by scientific publications investigating the development of emotional intelligence in preschool children and primary schoolchildren. Thus, L. Derkach (2023) believes that emotional development is vital for primary school students, as it enables the child to regulate their emotions and feelings more correctly in the future, to adequately perceive various situations in everyday and school activities. Furthermore, this ability allows children to build relationships more correctly, resolve conflicts using good reasoning, and communicate successfully with their peers. |
| 2 | Youth (13-20 years) | A sufficient level of emotional intelligence development enables rapid development of personal competence. This trend leads to better health and focus on learning, and creates a positive experience of success (Meniado, 2021). Emotional intelligence has a positive impact on the educational process and on the student's personality by increasing efficiency through raising the student's self-esteem and improving the student's self-perception of themselves. |
| 3 | Early maturity (21-30 years) | There are also scientists who distinguish between the learning styles of students depending on their development of emotional intelligence. Students with developed emotional intelligence have learning styles that can be described as self-development. It turned out that the level of well-being, expressed as life satisfaction, is related to this. Self-control, which reflects the ability of a person to manage their emotions, make decisions, cope with stress and helps this category of students to have an independent learning style. Whereas students with low emotional intelligence have a dependent learning style, meaning they need an expert to tell them what to do. This category of students needs outside help in the learning process (Vidyakala, 2019). Emotional intelligence affects work performance, behaviour, motivation, and job satisfaction, while in others, emotional intelligence affects psychological capital and job performance (Mustaffa, 2018). |
| 4 | Maturity | Emotional intelligence can increase employee productivity by creating relevant civic behaviours (Riego de Dios, 2020). |

**Source**: developed by the author of this study based on the results of the literature search

As presented in Table 2, emotional intelligence is vital at every stage of life, as it helps in learning, work, and social communication. The claim that emotional intelligence is not a permanent trait and can therefore be developed throughout life is well-founded. However, everything a person learns requires constant use, because it is only through putting their knowledge into practice that they gain skills, experience, and growth, otherwise they will quickly lose their new achievements. Therefore, to develop emotional intelligence, a person needs to constantly work on themselves. Enhancing the development of emotional intelligence depends on the following (Priskilla, 2020):

- expanding the concept of emotional intelligence and understanding its role in one's own life;
- developing the ability to manage one's own emotions;
- understanding the emotions of other people, which will contribute to successful and effective professional activity.

Thus, emotional intelligence is not an absolute given, it is a special form of ability that can be developed. Therefore, emotional intelligence development programmes are substantiated, which should be designed according to the stages of life and be accessible to all people. For a more profound substantiation of the significance of developing human emotional intelligence, it should be noted that human emotions do not prevent people from making balanced and effective decisions. And the level of intelligence itself is not always the key to a person's success. The researchers confirmed this hypothesis by investigating the educational process.

In school, there are often students who are unable to achieve academic success equivalent to their intellectual abilities. There are students who have high intellectual abilities but relatively low academic achievement, and there are students whose intellectual abilities are low but who can achieve high academic achievement. Therefore, the level of intelligence is not the only factor that determines success, as there are other factors that influence it (Priskillaa, 2020). As Figure 2 shows, a sufficient level of emotional intelligence in the participants of the educational process contributes to its better efficiency and a synergistic effect in which all participants develop. Another essential fact is that the research touched upon the study of emotional intelligence of people who are not successful in their personal lives due to the development of addictions (alcohol consumption) and suicidal tendencies.

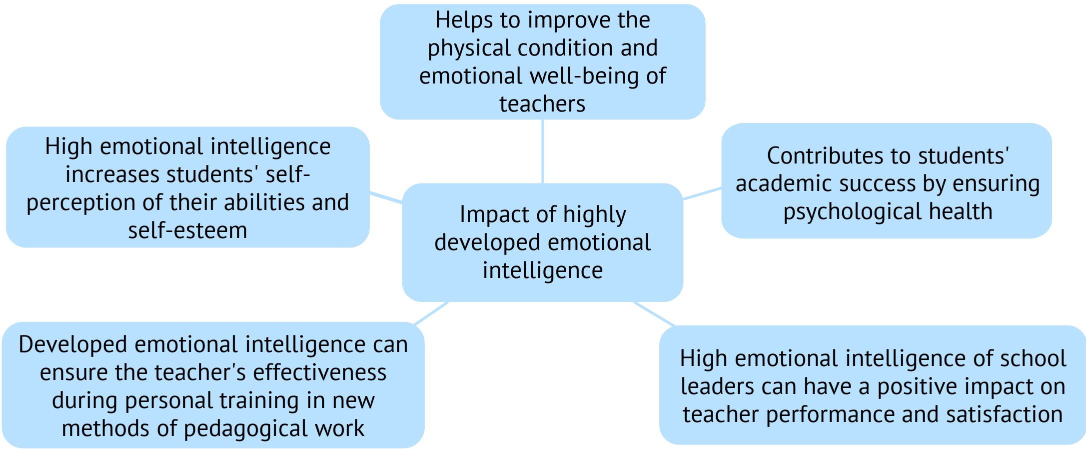


**Figure 2.** The impact of emotional intelligence on the pedagogical process and its participants

S. Obeid *et al.* (2021) concluded that there is a significant relationship between alcohol dependence and low development of emotional intelligence. A developed level of emotional intelligence leads to positive changes in professional and domestic life. These researchers found that emotional intelligence is essential for preventing the development of alcohol abuse disorders in both adolescence and adulthood. A low level of emotional intelligence in a person is manifested as an inability to understand one's own emotions and an inability to manage one's emotional state. With a sufficient level of emotional intelligence development, a person has advantages in the above-mentioned aspects, while suffering less from stress disorders. In addition, this category of personalities demonstrates more effective management skills. People who displayed low to moderate emotional intelligence in the study showed a low ability to control their negative emotions. This category of people also proved to be more prone to stress disorders and major depression. They are unable to recognise their emotions and those of others by facial expressions, showing limited thinking during stressful situations. On the contrary, people who demonstrated a prominent level of emotional intelligence were able to correctly identify, use, and express their emotions and, on this basis, take reasonable steps to overcome stressful situations. That is, developed emotional intelligence is a personal protective barrier against deviant behaviour in society. These scientists also investigated the relationship between the level of development of emotional intelligence and suicidal tendencies. The study identified factors that can increase suicidal tendencies, including depression, impulsive anger, low self-esteem, feelings of helplessness, and difficulties in expressing one's emotions. Individuals with a prominent level of emotional intelligence were able to cope with life's difficulties and psychologically negative states more easily than those with a low level of emotional intelligence. The latter showed a greater ability to succumb to stress and problems during the experiment (Obeid *et al.*, 2021).

Thus, a well-educated and professional person may not succeed in their career and personal life if the level of emotional intelligence is low. Emotional intelligence is responsible for self-awareness, control over emotional impulses and the ability to manage them. It is important to be able to manage emotions and avoid impulsive actions. That is why it is necessary to develop emotional intelligence and treat it as a resource that is on a par with intellectual and professional knowledge.

## DISCUSSION

The theoretical analysis has shown that when researching the term "emotional intelligence", researchers build definitions around four attributes:

- self-management, defined as the ability to control impulsive feelings and behaviour;
- self-awareness, which is defined as a person's developed ability to understand their own emotions and their impact on the thought process and behaviour;
- social awareness, which is expressed as the ability to empathise;
- relationship management, which is expressed as the ability of an individual to maintain positive and good relationships with others, the ability to communicate well, which creates an inspirational impact on others.

Thus, emotional intelligence is a vital component of a person's psyche, which directly affects their life in professional and everyday life through active cognition of one's own emotions and those of others. J. Imperial *et al.* (2021) confirm this. These scientists define emotional intelligence through the lens of a person's ability to recognise their own and other people's emotions, as well as to manage them to build positive social relationships. These researchers have conducted studies that link leadership qualities and the level of emotional intelligence development. It was established that effective leadership requires more than just cognitive intelligence – it requires the development of emotional intelligence. Progress begins with the perception of emotions, which develops to the ability to manage emotions, which represents the highest level of emotional intelligence skills.

E. Riego de Dios (2020) noted that emotional intelligence is a set of competencies that demonstrate the ability to recognise, understand, and manage behaviour, mood, and impulses. Furthermore, the author also outlined emotional intelligence as a perception of how well a person understands, regulates, and expresses their own emotions to adapt to the environment and maintain well-being. It is also the ability to perceive emotions, use emotions to improve thinking, understand, label, and regulate emotions in oneself and others.

O. Andrei (2023) proposed another definition of emotional intelligence. The researcher describes emotional intelligence as a tool for developing students and helping teachers to advance their professional careers. Teachers need to be aware of their emotions and feelings to help students solve problems. People with a higher level of emotional intelligence benefit from a sense of creativity, develop balanced thinking, cope with their nervousness, and establish quality relationships with others. Emotional intelligence encourages people to meet their physical, mental, spiritual, and emotional needs and to communicate effectively with others. Teachers with developed emotional intelligence are the best at managing their students' emotions. In the classroom, students should learn to recognise and accept differences in emotional expression and communication.

Generally, when describing emotional intelligence, scientists use different terms: intelligence, a component of a person's life, human ability, cognitive ability, competence, mind. To describe emotional intelligence, it is simplistic to use such categories as "ability", "capability", "component", "set", "tool", because it is a full-fledged component of the human psyche. Therefore, in the context of the present study, emotional intelligence is considered as a component of the psyche that ensures the perception, understanding, control, and evaluation of emotions, while distinguishing between them and using the information received to guide one's thoughts and actions.

The study found that the level of emotional intelligence determines the success of the educational process. This is also evident in the study of T. Selvan (2020), who found that emotional intelligence affects a person's life, forming the basis for success at home, school, and work. Teachers need emotional intelligence skills to work more effectively and impart knowledge to their students, as well as to maintain warm relationships with their colleagues and everyone around them. Emotional intelligence increases motivation, optimism, and joy. Therewith, it reduces violence, depression, and isolation. Emotionally developed teachers make better decisions, live holistically, and use their emotions as a source of energy. They are more effective in solving problems, collaborate better, and are more effective leaders. Rather, such teachers demand a prominent level of emotional competence from students, while increasing their academic competence and performance (Selvan, 2020).

K. McEown *et al.* (2023) showed the presence of a relationship between emotional intelligence as a negative predictor of stress and confirms the predictive relationship between stress and burnout. From a practical standpoint, these results indicate how developed emotional intelligence can help mitigate the negative effects of stress and (indirectly) increase engagement. This points to the role of teacher attention to emotionality, self-control, sociality, and well-being in the classroom. Considering the potential of emotional intelligence as a learning construct, conducting training sessions can contribute to academic performance and help prevent emotional burnout.

At various stages of a person's life, there are different requirements and needs for the development of emotional intelligence. This is confirmed by scientific research, which emphasises that a mentor, or an adult with developed emotional intelligence, can act as an example for a child and develop their emotional intelligence. This is confirmed by studies of children of preschool and primary school age. Y. Wang *et al.* (2023) found that in interacting with children, teachers with developed emotional intelligence can better control their emotions and treat children with a more accepting attitude. It builds a good relationship between teacher and student that is more effective. Kindergarten teachers need regular training in emotion management and use it to understand the significance of emotional intelligence in the interaction between teacher and child. As for teachers, in the everyday life of children, they should be acutely aware of their own emotional state and the emotional state of children and be able to respond adequately to children's emotions.

The findings of a study by H.K. Pong & C.H. Leung (2023) suggest that young people with prominent emotional intelligence also show more care, control, curiosity, and confidence in career adjustment. All domains of emotional intelligence – self-assessment of emotions, assessment of other people's emotions, and use and regulation of emotions – are positively related to developed emotional intelligence. However, the studies of these scientists have a particularly strong connection for the domain of self-assessment of emotions and professional adaptation.

The impact of developed emotional intelligence on a mature person is also significant (for managers and leaders specifically). This is confirmed by J. Ugoani (2021), who showed that emotional intelligence as an indicator of competence, when implemented, is a powerful tool for effective human resource management and plays a key role in finding competent leaders who can rebuild modern corporate organisations through efficiency. The distribution of responsibilities within the organisation should be consistent and based on both individual and group abilities, as well as other aspects of emotional and social abilities and behaviour. The concept of accountability in relation to emotional intelligence science recognises that applying solely classical or industrial relations theories to work planning, which focus primarily on optimising efficiency and effectiveness by simplifying, routinising and specialising all work, can no longer guarantee better performance from individuals and teams. Since effective human resource management involves managing the external and internal perspectives of an organisation, different situations may arise that require individual or combined emotional intelligence factors, such as emotional self-awareness, self-control, honesty, empathy, influence, openness, adaptability, flexibility, motivation, and leadership, among others. These are some of the components that influence the strategic approaches needed to improve people management to achieve the desired results.

## CONCLUSIONS

The study presented above suggests that emotional intelligence has a substantial impact on a person's life. Therewith, it was confirmed that developed emotional intelligence has a positive effect, while low or undeveloped emotional intelligence has a negative effect. Thus, developed emotional intelligence contributes to balanced and effective decisions, social interactions, and, as a result, improves life. Low emotional intelligence does not allow a person to resist depression, addictions, and suicidal tendencies. It should be emphasised that emotional intelligence is not a given quality, it can be developed. Programmes for the development of emotional intelligence should be developed according to the stages of a person's life and career. These programmes should be available to everyone.

An analysis of the scientific studies of Ukrainian and international researchers confirmed the existence of different approaches to the interpretation of the term "emotional intelligence". However, it was found that all the formulations are built around basic abilities: to understand the emotions of others and personal emotions, to control one's own emotions, to empathise, to act on the information received.

It was also found that the history of emotional intelligence is rather brief. However, some modern scholars identify the term "emotional intelligence" with others: "social intelligence", "rational intelligence", "spiritual intelligence". The analysis of the definitions of emotional intelligence showed that scientists use different terms to describe emotional intelligence: intelligence, human ability, component of human life, cognitive ability, competence, mind. To describe emotional intelligence, it is simplified to use such terms as "ability", "capability", "component", "set", because it is a full-fledged component of the human psyche.

Further research on this subject may include the investigation of human emotional intelligence in the context of personal effectiveness in conflict situations, the development of emotional intelligence development programmes, and experimental research on the effectiveness of such programmes.

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## CONFLICT OF INTEREST

The author of this study declares no conflict of interest.

## REFERENCES

[1] Agarwal, N. (2020). Comparative assessment of emotional intelligence of prospective and working secondary teachers of Delhi-NCR. *International Journal of Psychosocial Rehabilitation*, 24(5), 7363-7375. doi: 10.37200/IJPR/V24I5/PR2020771.

[2] Andrabi, N.F., & Rainayee, R.A. (2020). Emotional intelligence and innovative work behavior: A review. *International Journal of Engineering and Management Research*, 10(4), 185-192. doi:10.31033/ijemr.10.4.26.

[3] Andrei, O. (2023). Enhancing religious education through emotional and spiritual intelligence. *HTS Teologiese Studies/Theological Studies*, 79(1), article number 7887. doi: 10.4102/hts.v79i1.7887.

[4] Asieieva, Yu., Melnychuk, I., & Kuznetsova, A. (2021). Emotional intelligence as a factor of influence on leader efficiency. *Habitus,* 31, 21-25. doi: 10.32843/2663-5208.2021.31.3.

[5] Avhustiuk, M. (2021). Main aspectual characteristics of emotional intelligence models. *Visnyk of the Lviv University. Series Psychological Science*, 8, 3-9. doi: 10.30970/PS.2021.8.1.

[6] Derevianko, S. (2016). *Phenomenology of emotional intelligence*. Chernihiv: Desna.

[7] Derkach, L. (2023). Development of emotional intelligence in children of primary school age. *Pedagogical Search*, 1(117), 53-57.

[8] Imperial, J., Halili, C., & Vargas, D. (2021). School head emotional intelligence characteristics and performance. *SSRN*. doi: 10.2139/ssrn.3802425.

[9] Lavrychenko, N. (2022). The problem of social-emotional intelligence in teacher training. *Youth & Market,* 6(204), 60-65. doi: 10.24919/2308-4634.2022.265728.

[10] Li, X., Chang, H., Zhang, Q., Yang, J., Liu, R., & Song, Y. (2021). Relationship between emotional intelligence and job well-being in Chinese clinical nurses: Multiple mediating effects of empathy and communication satisfaction. *BMC Nursing*, 20(1), article number 144. doi: 10.1186/s12912-021-00658-4.

[11] McEown, K., McEown, M.S., & Oga-Baldwin, W.L.Q. (2023). The role of trait emotional intelligence in predicting academic stress, burnout, and engagement in Japanese second language learners. *Current Psychology*, 43, 1395-1405. doi: 10.1007/s12144-023-04296-8.
[12] Mendoza Velazco, D., La Madriz, J., López, M., & Ramón, V. (2018). Research competencies of higher-education teaching staff based on emotional intelligence. *Mediterranean Journal of Social Sciences*, 9(5), 41-52. doi: 10.2478/mjss-2018-0137.
[13] Meniado, J.C. (2021). Organizational citizenship behavior and emotional intelligence of EFL teachers in Saudi Arabia: Implications to teaching performance and institutional effectiveness. *Arab World English Journal*, 11(4), 3-14. doi:10.24093/awej/vol11no4.1.
[14] Mustaffa, M. (2018). Emotional intelligence of special educators and general school teachers. *International Journal of Research and Analytical Reviews*, 5(2), 532-535.
[15] Obeid, S., Haddad, C., Fares, K., Malaeb, D., Sacre, H., Akel, M., Salameh, P., & Hallit, S. (2021). Correlates of emotional intelligence among Lebanese adults: The role of depression, anxiety, suicidal ideation, alcohol use disorder, alexithymia and work fatigue. *BMC Psychology*, 9, article number 18. doi: 10.1186/s40359-021-00525-6.
[16] Owan, F. (2022). Emotional intelligence and students' academic achievement in chemistry in senior secondary schools. *SSRN*. doi: 10.2139/ssrn.4066519.
[17] Pong, H.K., & Leung, C.H. (2023). Cross-sectional study of the relationship between trait emotional intelligence and career adaptability of Chinese youths. *BMC Public Health*, 23, article number 514. doi: 10.1186/s12889-023-15372-w.
[18] Priskillaa, V. (2020). The influence of intellectual intelligence, emotional intelligence, and spiritual intelligence on student understanding level. *SSRN*. doi: 10.2139/ssrn.3637760.
[19] Raievska, Ya., & Andriushchenko, K. (2021). Influence of emotional intelligence on the professional success of employees of the state employment service. *Habitus*, 25, 108-112. doi: 10.32843/2663-5208.2021.25.18.
[20] Riego de Dios, E. (2020). Emotional intelligence and work values of selected instructors from a teacher education institution. *International Journal of Academic Multidisciplinary Research*, 4(5), 92-97.
[21] Selvan, T. (2020). *Emotional intelligence of teachers working in higher secondary schools*. Retrieved from https://ssrn.com/abstract=3604032.
[22] Sutton, R. (2021). Emotion bites: A starter guide to teaching emotional intelligence in the law school classroom. *SSRN*. doi: 10.2139/ssrn.3804933.
[23] Ugoani, J. (2021). Emotional intelligence and its impact on effective human resource management. *International Journal of Economics and Financial Research*, 7(1), 5-13. doi: 10.32861/ijefr.71.5.13.
[24] Vidyakala, K. (2019). A conceptual study on learning styles and emotional intelligence. *Journal of Emerging Technologies and Innovative Research*. Retrieved from https://ssrn.com/abstract=3615552.
[25] Wang, Y., Pan, B., Yu, Z., & Song, Z. (2023). The relationship between preschool teacher trait mindfulness and teacher-child relationship quality: The chain mediating role of emotional intelligence and empathy. *Current Psychology*, 43, 2667-2678. doi: 10.1007/s12144-023-04512-5.

# Емоційний інтелект та його вплив на життя людини в глобальному світі

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**Анотація**. Кожна людина прагне бути успішною в своєму житті, проте емоції часто стають підґрунтям для деструктивної поведінки. Розвиток емоційного інтелекту дозволяє розуміти та управляти власними емоціями, що дає людині змогу успішно адаптуватися до змін і побудувати позитивні соціальні взаємодії. Метою статті було дослідити вплив емоційного інтелекту на життя людини, в контексті особистої та професійної успішності. У роботі використовуються загальнонаукові методи: аналіз, синтез, порівняння, класифікація, узагальнення, формалізація. Було проаналізовано різні підходи до трактування категорії «емоційний інтелект». Визначено, що немає уніфікованого підходу до визначення даного терміну, проте науковці будують поняття емоційного інтелекту з урахуванням чотирьох аспектів психіки людини відносно емоцій: самоуправління, самосвідомість, соціальна інформованість, керування. Також розглянута історія формування емоційного інтелекту як категорії, яка є дуже інтенсивною з точки зору розуміння цього поняття та його дослідження. Визначено, що протягом життя людина може здійснювати розвиток власного емоційного інтелекту, оскільки він не є сталим від народження, його можливо розвивати. Аргументовано, що емоційний інтелект не залежить від вікових періодів та професійної сфери діяльності людини. Розглянуто вплив розвиненого емоційного інтелекту на учасників навчального процесу, серед яких: вчителі, учні, керівники навчальних установ. Результати даного дослідження можуть бути використані науковцями для подальшого аналізу терміну «емоційний інтелект» та його впливу на життя людини, педагогами для формування навчально-методичних матеріалів, студентами для ознайомлення з теорією даної тематики

**Ключові слова:** емоції; вікові групи; професійна сфера; контроль; самосвідомість; розуміння; управління

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# Influence of community identification on pro-ecological behaviour of Ukrainians in war conditions

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**Abstract.** The study examines changes in the environmental behaviour of Ukrainians under the influence of military operations. One of the key predictors of such changes is the specific features of community identification of Ukrainians in the face of threat. The critical criterion of pro-ecological behaviour is considered to be the environmental responsibility of Ukrainians. The study involves several stages of qualitative and quantitative data collection. In the process of data analysis, such qualitative methods as content and thematic analysis of narratives are also used. Quantitative data analysis is performed using regression analysis, multivariate analysis of variance, and correlation analysis. Some components of environmental responsibility, such as activity, emotion, and value, were identified. During the quantitative data collection stage, the role of civil, territorial, and professional identity as predictors of increasing environmental responsibility of Ukrainians is recorded. In general, the growing role of civil identity as a consolidating factor for the formation of an integrated identity that can withstand threats, including environmental ones, is interpreted. Strengthening the emotional component affects the sense of environmental threat at the subjective level and contributes to the awareness of the need to preserve the environmental well-being of the state. Strengthening the manifestation of European identity has a positive impact on the integration of pro-ecological European values. Identifying the interaction of professional and civil identities can serve as an indicator of the strategic importance of Ukraine as an environment for work and personal realisation

**Keywords:** military operations; community identification; environmental responsibility; environmental behaviour; civil identity

## INTRODUCTION

Ukraine is a country that has a substantial biodiversity of natural resources, and this diversity, in turn, determines the economic vector of development and social structure of Ukrainians. Identification with land and nature was crucial for Ukrainians and acted as a factor in preserving Ukrainian identity (Zemliuk, 2007; Kulchytskyi, 1949). However, with the independence of the environmental sector, reverse processes have occurred, characterised by overexploitation of resources, their pollution, and commercialisation. Accordingly, the environmental situation in Ukraine, even before the full-scale invasion, required urgent actions to improve it, but military aggression caused irreparable damage. Notably, the specific feature of managing natural resources (for example, forest resources) in Ukraine is that management decisions are made not to prevent threats and risky situations, but after they have already occurred, which leads to the use of excessive potential

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for solving the problem and violating the principles of sustainable development (Kovalchuk, 2023).

However, when outlining this problem, it is important to note not only the results of studies on the destruction of Ukrainian resources but also to refer to the documented and widely presented facts of damage caused by the Russian Federation as unprecedented in modern European history. To date, military operations are being conducted on the territory of more than nine hundred objects of the nature reserve fund with an area of more than 12,406 square kilometres, equaling about a third of the nature reserve fund of Ukraine. About 200 territories of the Emerald network with an area of 2.9 million hectares are under threat of destruction. Constant fires are recorded in forests in the North and East of Ukraine. Ecological biodiversity is being lost in the East, North, and South of Ukraine – the protected areas of the Kinburn Spit and Dzharylhach island are being affected. There is pollution of the soil and sea with petroleum products. Fires often occur at industrial facilities due to military operations (Baleha & Doktor, 2023). As a result of constant rocket attacks, the environment and water bodies are polluted with chemicals – during the detonation of rockets and artillery shells, a number of dangerous chemical compounds are formed: carbon monoxide (CO), carbon dioxide ($CO_2$), water vapour ($H_2O$), nitric oxide (NO), nitrous oxide ($N_2O$), nitrogen dioxide ($NO_2$), formaldehyde ($CH_2O$), cyanide vapours (HCN), nitrogen ($N_2$), and a large amount of toxic organic matter, oxidise the surrounding soils, wood, sod (Perha, n.d.).

Further deterioration of the environmental situation poses an additional threat to the country's national security, which has already been disrupted by military operations, and further destruction of its political, social, and economic structure. According to the government's forecasts, war, migration, and the consequences of the pandemic will negatively affect Ukraine's adaptation to climate change, and mass relocation of the population increases the burden on natural objects of the environment (Popyk, 2022). Deterioration of environmental conditions can affect not only the economic development of the state but also the physical and mental health of the nation.

Ukrainians have faced the current severe environmental consequences complicated by previous environmental negligence, which was caused by the low level of environmental responsibility of Ukrainians, which is based on several reasons. Ukrainian researcher O. Rudomino-Dusyatska (2009) recorded a contradiction between the declaration of ecocentric manifestation of ecological consciousness and the actual ecological activity among young people. High indicators of environmental responsibility were not manifested in specific actions. This behaviour was associated with a low level of development of strong-willed qualities of young people. It can be assumed that these trends were also associated with the low level of motivation of Ukrainians to save their own resources due to the lack of actualisation of civil identity. The constant alienation of Ukrainian territories prevented the formation of final attachment and responsibility for them (Strilchuk, 2022). A full-scale invasion by the Russian Federation shows that despite the establishment of sovereign borders, this alienation continues, once again forcing Ukrainians to cut ties with territorial communities. Another reason is economic poverty, which causes either excessive exploitation of resources or migration – both labour and general. According to the social comparison theory, group members are psychologically motivated to see their groups as more positive compared to other groups (Suls & Wills, 1991). However, in 2018, according to a sociological survey, a third of Ukrainians, for economic, social, and political reasons, wanted to leave the state and move to states with a better, in their opinion, not only economic but also social way of life.

Environmentally responsible behaviour has practical forms of expression – sorting, conservation (of natural resources), utilisation. However, it is based on a socio-psychological basis founded on personal and social values, personal qualities, and identity features. Environmental degradation is a subject of study in the natural sciences, but its causes lie in the humanities and social sciences (Anderson, 1992).

Researchers point to five aspects of assessing environmentally responsible behaviour: environmental management, or physical actions, beliefs, consumer or economic, political, and legal actions (Hsu & Roth, 1998). People are more likely to exhibit proecological behaviour if they feel in harmony with nature or understand the practical benefits of such behaviour (Paswan *et al.*, 2017).

The study of environmentally responsible behaviour outlines a large field of research that can be based on a large number of predictors of individual and social order. In particular, values, attitudes, socio-demographic factors, and the impact of interpersonal relationships on the formation of an environmentally oriented "green identity". The main objective of this study is to assess the role of community identification of Ukrainians of different levels of manifestation as a possible prerequisite for changing environmental responsibility. Community identity is characterised by various forms of community affiliation beyond existing social contacts (Vasiutynskyi, 2010). The scientific context of the examination of the influence of identity on projecology constantly proves the existence of links between its various types and environmentally oriented behaviour. V. Pong & K.-P. Tam (2023) explore the psychological basis of global identity as associated with proecological behaviour and highlight duty, responsibility, and relevance as the main mechanisms that form this connection. Global identity is characterised by negative correlations with traits such as ethnocentrism, authoritarianism, social dominance orientation, and egocentrism, and is positively linked to the values of universalism, care, and justice. Therewith, it is impossible to avoid the fact of attachment to the place as a motivational factor for the ecological preservation of territories. Thus, the values of more global forms of identity can determine behaviour at the local level.

## MATERIALS AND METHODS

The investiongation procedure included several steps. In the first stage, qualitative and quantitative research methods were applied. The stage involved identifying the basic socio-psychological constructs that underlie the ecological behaviour of Ukrainians and the most substantial forms of community identification of Ukrainians. The interview method was used to collect detailed responses of respondents and, identifying the main indicators of the behaviour of Ukrainians in the environmental sphere in the context of military operations based on them.The interview was conducted online and included two questions about the environmental situation in the context of military operations: 1) have your views and general attitude to environmental problems changed in Ukraine or in your region in particular? 2) are you concerned about environmental pollution, the problem of destroying or preserving certain natural areas, etc. A total of 91 respondents aged 18 to 72 years were surveyed, 63% female and 37% male. The survey was conducted in October 2022. Using the methods of content analysis and thematic data analysis, groups of respondents who differ in their attitude to environmental problems were identified and certain forms of environmental behaviour of Ukrainians were recorded. From the proposed set of identities, respondents chose the most meaningful ones for them, as a result of which, the seven most prominent community identities were recorded: civil, local, religious, professional, east slavic, European, ethnic. An additional quantitative survey of 115 respondents aged 17 to 70 years was conducted to clarify the specifics of a positive or negative change in the importance of environmental problems and possible reasons for such a change, where 47% of respondents were men and 53% – women, 24% of respondents were in Europe with refugee status at the time of the survey.

The second, main stage of the study, involved assessing the impact of a certain type of community identification on the environmental behaviour of Ukrainians. Thematic units obtained at the stage of qualitative data analysis were used to design the questionnaire. The questionnaire consisted of two parts. The proposed indicator statements had the form of a semantic differential. The first questionnaire was aimed at the internal personal sphere of the respondent, the second – interpersonal, which provided for their hypothetical assessment of the immediate environment in the manifestation of environmental behaviour in the context of community affiliation. In the second part of the questionnaire, these same indicators were highlighted. The survey was conducted in February 2023. Multiple regression analysis, multivariate variance analysis, and Pearson correlation analysis were used to analyse the data. The total sample of respondents was 397 people, including 69% of women and 31% of men. The sample was divided into the following age groups – 18-29 years – 55.4%, 30-44 years – 24.9%, 45-59 years – 16.9%, over 60 years – 2.9% (over 45 years – 19.8%). According to the status of location in war conditions, the following distribution was obtained: they are located in the same place as before – 61%. Internally displaced persons – 29.2%. Refugees (outside Ukraine) – 8.3%. Participants in military operations – 1.5%.

The examination of manifestations of community identification of the individual was conducted within the framework of the joint research of the Department of Mass and Communities Psychology. The novelty of investigating the environmental responsibility of Ukrainians under the influence of military operations provided for the search for empirical concepts and methodological tools. The main purpose of the study was to examine the relationships between certain types of personality identities that can influence changes in the environmental behaviour of Ukrainians or record their separate impact.

## RESULTS

Thematic analysis of the obtained data allowed identifying such forms of environmental behaviour of Ukrainians in the conditions of military conflict as environmental action, environmental anxiety, and environmental indifference. According to the results of the obtained narratives, it was established that 49% of respondents have not changed their attitude to environmental problems, 12% have changed, 18% indicated that environmental problems are important for them, and 12% stated that environmental problems are not relevant. An additional quantitative survey of 115 respondents on the importance of environmental problems showed that for 7% of respondents, environmental problems still did not matter, for 14% of respondents, the importance of environmental problems decreased, but for almost 52% of respondents, the importance of environmental problems increased.

The identified manifestations of environmental behaviour at the quantitative examination stage were systematised and designated as activity, emotional, and value (indifference-importance) components of environmental behaviour. These components are expressed in the corresponding indicator statements. The analysis of a quantitative examination with the participation of 397 respondents based on the selected conceptual constructs established a statistically substantial influence of identity types on these forms of environmental behaviour of Ukrainians.

Analysis of the data of the first part of the questionnaire aimed at assessing interpersonal interaction using multiple regression analysis identified such substantial predictors of the growth of environmental action ("I began to care more about the cleanliness of the environment") as the impact of civil society ($p \leqslant 0.001$) and territorial identity ($p \leqslant 0.001$). Two-factor analysis of variance identified no substantial interaction between these identities. Regarding the second part of the questionnaire aimed at interpersonal interaction of respondents, such substantial predictors as territorial and European identity were identified. An interesting fact is that it was these types of identities that respondents gave diametrically opposite assessments of importance. In the case of the greatest manifestation of European identity, the territorial one was the smallest and vice versa. However, a two-factor analysis of variance identified substantial individual influences at the importance level ($p \leqslant 0.000$) of these two independent variables per dependent, but no interaction was detected between them. Therewith, there was a negative correlation between religious identity and environmental action. Additional correlation analysis showed the presence of a weak correlation relationship ($p \leqslant 0.537$) between religious and East Slavic identities.

Analysis of the emotional indicator ("it hurts me because of the environmental consequences caused by war") on the first part of the questionnaire using multiple regression analysis determined such substantial predictors of the growth of environmental grief as civil and professional identity. Two-factor analysis of variance established substantial separate effects of these two independent variables on the dependent one (both at the level of $p \leqslant 0.000$), and a substantial interaction between them was detected (at the importance level $p \leqslant 0.015$). According to the second part of the questionnaire ("they are hurt because of the environmental consequences caused by the war"), multiple regression analysis identified such substantial predictors of the growth of environmental grief as territorial, professional, and European identity. A three-factor analysis of variance did not identify any substantial interactions between independent variables in their effect on the dependent one.

The examination of environmental value using multiple regression analysis has shown that the growing importance of environmental problems is determined by such predictors as civil and professional identity. Two-factor analysis of variance established substantial separate effects of these two independent variables on the dependent one but no interaction between them. According to the second part of the questionnaire "the importance of environmental problems has increased for them", multiple regression analysis determined such substantial predictors as professional, civil, and territorial identity. A three-factor analysis of variance did not identify any substantial interactions between independent variables in their effect on the dependent one.

## DISCUSSION

Environmental behaviour is a manifestation of human goodwill. Benevolence and conscientiousness are very important for shaping actions in the direction of environmental management (Meitiyani *et al.*, 2022). Critical situations influence the relevance of environmental problems by shifting the focus of attention to other circumstances. D. Domalewska (2021) states that even crisis situations such as the COVID-19 pandemic and its associated consequences have not led to a decrease in public interest in environmental issues. Military operations are characterised by substantially greater human losses, which primarily actualise the value of life and security, along with which the importance of environmental problems could potentially decrease. This is partially confirmed by this study, where about 11-12% of respondents emphasise the inappropriateness of showing environmental concern. On the other hand, military actions have caused substantial damage to the Ukrainian environment and highlighted its importance in the eyes of Ukrainians, but it is possible to assess their impact on changing the environmental behaviour of Ukrainians in the activity component only at the predictive level.

The process of community identification of Ukrainians, namely territorial identification, has undergone constant changes, considering the historical context of Ukraine's development and its recent belonging to a major interstate entity – the Soviet Union. According to empirical data, in the first decade of independence, the hierarchy of territorial identities of Ukrainians was dominated by local identity at the local level (about 40%), the value of civil identity occupied the following position (about 28% of respondents), while European identity occupied the last place with an indicator of 4-5% of Ukrainians who marked themselves as Europeans (Korzhov, 2010). The pronounced regional identification of Ukrainians is due to the distinctive historical circumstances of the formation of the regional national composition of the population of Ukraine (Shekhovtsova-Burianova, 2021). Transition societies are those, where a new identity is formed in the context of a new social and ideological paradigm. Proceeding from the position of identity activation against the background of the threat of its destruction, the role of regional identity can be explained as a support for the individual and community in a period of identification uncertainty at the national level. This fact can explain the diverse attitude of Ukrainians to local natural resources from conservation to destruction, considering the dominance of the type of attachment – the identity of a place or dependence on a place (Vaske & Kobrin, 2001). In addition, in Ukraine, trends of contrasting the identity of some regions with others actively developed, exacerbating social conflict (Pahomenko, 2015). Such a conflict of identities may have increased their importance in the eyes of authentic communities, but it hindered the possibility of resource integration of the region into the system of national natural values to further protect them. The resource component of Donbas, having a predominantly utilitarian meaning ("Donbas feeds Ukraine"), was used more as a resource than a valued identity with the subsequent right to exhaustion.

Military events led to an increase in the importance of civil identity. This can be traced by the total number of respondents who indicated its primary importance in a number of surveys (from 60 to 70% of respondents). Its activation as a predictor of proecological behaviour indicates an increase in the value of resources at the national rather than territorial level, and substantial environmental losses have further activated their role in the eyes of Ukrainians. Among the number of respondents for whom the importance of environmental problems has increased, 35% indicated that this was due to military operations. Despite the fact that so far, the number of those who have become more concerned about the environment in the activity component of environmental behaviour is only 10-15% (according to the results of all studies), the share of young people who are already taking certain steps to preserve the environment at the age of 18-25 years is 70%. The fact that Ukrainians, unlike previous studies, can list specific steps of proecological behaviour in contrast to general phrases like "I try not to litter" is notable.

However, territorial identification is expected to manifest itself as a predictor of such a component of proecological behaviour as environmental action. Local identity is often interpreted as substantial in the ecological preservation of territories (Mistry *et al.*, 2016). J.A. Fresque-Baxter & D. Armitage (2012) emphasise the environmental responsibility of local identity due to intangible assets such as location binding, rooting, and aesthetic/experimental value. In addition, the results of a study of the impact of communication with society and socially responsible behaviour and environmental responsibility confirmed the existence of such a link (Nasr *et al.,* 2022). However, now, due to substantial migration processes in Ukraine, internally displaced persons from the East and South are being integrated into new communities that carry other local identities, particularly, with a pronounced resource type of motivation. Their impact on natural resources requires further examination and observation.

I. Andel (2013) notes that there is a link between migration and the deterioration of the ecological situation in the region. This relationship is usually caused by the effects of environmental degradation in the area of residence. However, in this case, external migration can have a positive impact on the Ukrainian environment. In the assessment of interpersonal interaction, the activation of European identity in the activity and emotional components of environmental behaviour is observed. The mass departure of Ukrainians abroad and the military support of the West contributed to the strengthening of European identity. This is confirmed by a large percentage of Ukrainians who have become more active in the manifestation of European identity (41% of respondents). The imitation of pro-ecological European values is confirmed by the data of a qualitative study, where respondents describe their own impressions of environmental responsibility in European countries. In addition, the results of a quantitative survey showed that 12% (half of the refugees displaced to Europe), observing the environmental behaviour of Europeans, changed their environmental behaviour.

The manifestation of professional identity as a predictor of the growth of environmental behaviour of respondents indicates the importance of the professional community as a value cell. Professional affiliation directly affects the formation of environmental views, considering the policy of the organisation itself in the direction of preserving the environment (Fielding & Hornsey, 2016). The identified manifestation of professional identity in the growth of such components as emotional and value for both types of interaction indicates the role of professional community identification as an environment for producing values of preservation and care, including for the environment. Recording statistically substantial interaction between professional and civil identity may indicate that Ukraine and its resources are potentially in the zone of strategic interests of the individual and are related to work for the future of the state. Education, as a direct component of professional identity, requires additional examination in the sense of attachment to the territorial community and place (place attachment). In a study of the impact of tourism on environmental behaviour in one of the regions of Italy, it was found that visitors with a lower level of Education have a stronger sense of belonging to a historical site than people with a higher level of education (De Cicco *et al.*, 2023). In the study, no statistically substantial relationships were recorded between the level of education and the type of community identification.

Integrated identity helps an individual resist transformations without constantly changing self-esteem because a clear identity structure is resistant to internal changes and changes in the social environment in crisis circumstances (Domalewska, 2021). The results obtained indicate an increasing role of civic identity both in general importance for respondents and as a predictor of proecological behaviour. Military aggression has led to the activation of the civil form of identification in the face of a threat to the national integrity of Ukraine. This trend may indicate a dominant function of civil identity, which consolidates other manifestations of community identities of the individual.

## CONCLUSIONS

The results of the study showed a substantial increase in the role of civil identity as a prerequisite for the growth of the environmental responsibility of Ukrainians. Therewith, territorial identity has a leading role in the manifestation of components of environmental responsibility. The importance of European identity as a predictor of environmentally responsible behaviour, which can have a positive impact on environmental responsibility, was identified. It can be assumed that the strengthening of the role of civil identity, together with the strengthening of the role of European identity, activates the manifestation of local identity in the direction of increasing environmental responsibility. That is, in other words, people take care of their own area, not only because they live there but also because it is a part of their country that needs to be taken care of.

The configuration of the manifested identities with the dominance of citizenship can lead in the future to potentially positive changes in the growth of environmental responsibility of Ukrainians, namely:

◊ strengthening the trend and strengthening the link to one's land not only as a resource but also as a value through awareness of the threat of illegal destruction of its biodiversity and alienation of territories;

◊ expanding the importance of one's region of residence beyond local borders and perceiving it as an integrated rather than autonomous component of Ukraine;

◊ assimilation of European environmental values through mass and direct interaction with the European community;

◊ activisation of the experience of an environmental disaster.

The aggravation of the emotional component in the experience of environmental loss and environmental threat increases the perception of the environment as a subject category that poses a threat directly to the individual themselves and not the certain external objects. The environment is percieved as part of the individual's life world. Emotional anxiety contributes to the integration of natural resources into the system of personal and social values. Their perception as substantial can have a positive impact on the development of environmental consciousness and the formation of environmentally responsible behaviour of Ukrainians. The activation of professional identity demonstrates the importance of the country's environmental well-being for the professional community of Ukrainians and enhances understanding of the value of resources through awareness of their role for the state and its future.

The prospects for further research are to examine other factors in the development of environmental responsibility and its components, and specific actions of Ukrainians that they use to preserve and improve the environmental situation both in the region and in the country in general. It is important to analyse the influence of such variables as demographic characteristics, the level of material well-being and education on the formation of proecological behaviour. In the context of the permanent territorial transformation of Ukraine and the long-term dominance of authoritarian power, examining the features of the locus of control of Ukrainians in the problem of resource conservation and assessing environmental consequences before and after the military invasion is promising.

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## CONFLICT OF INTEREST

The author of this study declares no conflict of interest.

## REFERENCES

[1] Andel, I. (2013). Ecological migration of population in the regions of Ukraine. *Social and Economic Problems of the Modern Period of Ukraine*, 3(101), 451-457.

[2] Anderson, M. (1992). Ecological literacy. Education and the transition to a postmodern world. *American Journal of Alternative Agriculture*, 7(1-2), 93-94. doi: 10.1017/S0889189300004537.

[3] Baleha, R., & Doktor, N. (2023). The environmental cost of war. In *Collection of materials II All-Ukrainian scientific and practical conference* (pp 14-18). Dnipro: Serednyak T.K.

[4] De Cicco, R., Dini, M., Curina, I., Francioni, B., & Cioppi, M. (2023). The influence of socio-demographic factors on feelings of attachment, involvement, loyalty attitudes, and environmentally responsible behavior toward a cultural destination. *Turistica*, 32(1), 150-176.

[5] Domalewska D. (2021). A longitudinal analysis of the creation of environmental identity and attitudes towards energy sustainability using the framework of identity theory and big data analysis. *Energies*, 14(3), article number 647. doi: 10.3390/en14030647.

[6] Fielding, K.S., & Hornsey, MJ. (2016). A social identity analysis of climate change and environmental attitudes and behaviors: Insights and opportunities. *Frontiers in Psychology*, 7, article number 121. doi: 10.3389/fpsyg.2016.00121.

[7] Fresque-Baxter, J. A., & Armitage, D. (2012). Place identity and climate change adaptation: A synthesis and framework for understanding. *Wiley Interdisciplinary Reviews: Climate Change*, 3(3), 251-266. doi: 10.1002/wcc.164.

[8] Hsu, S.-J., & Roth, R.E. (1998). An assessment of environmental literacy and analysis of predictors of responsible environmental behavior held by secondary teachers in the Hualien area of Taiwan. *Environmental Education Research*, 4(3), 229-249. doi: 10.1080/1350462980040301.

[9] Korzhov, G. (2010). Features of territorial identification of the population of modern Ukraine. *Ukrainian Socium*, 2(33), 31-43. doi: 10.15407/socium2010.02.031.
[10] Kovalchuk, S. (2023). Problems of environmental and economic security of forestry enterprises in the post-war period in Ukraine. *Green, Blue and Digital Economy Journal*, 4(1), 37-53. doi: 10.30525/2661-5169/2023-1-5.
[11] Kulchytskyi, O. (1949). Features of the characteristics of the Ukrainian people. In *Encyclopedia of Ukrainian Studies. General Part (EU-I)* (pp. 708-718). Munich, New York: Youth Life.
[12] Meitiyani, M., Astra, I.M., & Safitri, D. (2022). The relationship between personality and environmentally responsible behavior in Green High School. *Cypriot Journal of Educational Sciences*, 17(9), 3439-3449. doi: 10.18844/cjes.v17i9.8084.
[13] Mistry, J.A., *et al*. (2016). Community owned solutions: Identifying local best practices for social-ecological sustainability. *Ecology and Society,* 21(2), article number 42. doi: 10.5751/ES-08496-210242.
[14] Nasr, E., Emeagwali, O.L., Aljuhmani, H.Y., & Al-Geitany, S.H. (2022). Destination social responsibility and residents' environmentally responsible behavior: Assessing the mediating role of community attachment and involvement. *Sustainability*, 14(21), article number 14153. doi: 10.3390/su142114153.
[15] Pahomenko, S. (2015). Identity in the Donbas conflict. *Intermarum: History, Policy, Culture*, 2, 376-389.
[16] Paswan, A.K., Guzman, F., & Lewin, J. (2017). Attitudinal determinants of environmentally sustainable behavior. *Journal of Consumer Marketing*, 34(5), 414-426. doi: 10.1108/JCM-02-2016-1706.
[17] Perha, T. (n.d.). *Environmental consequences of Russia's war against Ukraine*. Retrieved from https://ivinas.gov.ua/viina-rf-protyukrainy/ekolohichni-naslidky-viiny-rosii-proty- ukrainy.html.
[18] Pong, V., & Tam, K.-P. (2023). Relationship between global identity and pro-environmental behavior and environmental concern: A systematic review. *Frontiers in Psychology*, 14, article number 1033564. doi: 10.3389/fpsyg.2023.1033564.
[19] Popyk, O. (2022). Ecological and economic aspects of migration processes. *Economy and Society*, 36. doi: 10.32782/2524-0072/2022-36-39.
[20] Rudomino-Dusyatska, O. (2009). Subjective-activity approach in solving psychological problems of environmental protection. In *Actual problems of psychology. ecological psychology, collection of scientific works of the Institute of Psychology named after H.S. Kostiuk* (pp. 143-145). Kyiv: H.S. Kostiuk Institute of Psychology of the National Academy of Pedagogical Sciences of Ukraine.
[21] Shekhovtsova-Burianova, V. (2021). Features of the regional identity of Ukrainians. *Current Problems of Philosophy and Sociology*, 29, 54-58. doi: 10.32837/apfs.v0i29.960.
[22] Strilchuk, O. (2022). Environmental awareness of citizens at different levels of territorial identification in Ukraine under decentralization conditions. *Population*, 12(26), 291-304. doi: 10.33120/popp-Vol26-Year2022-112.
[23] Suls, J., & Wills, T.A. (Eds.). (1991). *Social comparison: Contemporary theory and research*. Abingdon: Lawrence Erlbaum Associates, Inc.
[24] Vasiutynskyi, V. (2010). *Psychological dimensions of the community*. Kyiv: Zoloti Vorota.
[25] Vaske, J.J., & Kobrin, K.C. (2001). Place attachment and environmentally responsible behavior. *The Journal of Environmental Education*, 32(4), 16-21. doi: 10.1080/00958960109598658.
[26] Zemliuk, V. (2007). Ethnopsychological and ethnopolitical features of identities of Ukrainians. *Scientific Notes*, 34, 93-110.

# Вплив спільнотної ідентифікації на проеекологічну поведінку українців в умовах війни

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**Анотація**. В статті розглядається зміни екологічної поведінки українців під впливом воєнних дій. Одним з ключових предикторів таких змін виступають особливості спільнотної ідентифікації українців в умовах загрози. Ключовим критерієм проекологічної поведінки розглядалася екологічна відповідальність українців. Дослідження передбачало кілька етапів якісного та кількісного збору даних. В процесі аналізу даних було застосовано також такі якісні методи, як контент та тематичний аналіз наративів. Кількісний аналіз даних здійснювався із використанням регресійного аналізу, багатофакторного дисперсійного аналізу, кореляційного аналізу. Було виділено такі компоненти екологічної відповідальності як діяльнісний, емоційний та ціннісний. На етапі кількісного збору даних було зафіксовано роль громадянської, територіальної та професійної ідентичності як предикторів до зростання екологічної відповідальності українців. Загалом було інтерпретовано зростання ролі громадянської ідентичності як консолідуючого чинника для становлення інтегрованої ідентичності, що здатна протистояти загрозам в тому числі екологічним. Посилення емоційного компоненту впливає на відчуття екологічної загрози на суб'єктному рівні та сприяє усвідомленню необхідності збереження екологічного добробуту держави. Посилення прояву європейської ідентичності позитивно впливає на інтеграцію проекологічних європейських цінностей. Виявлення взаємодії професійної та громадянської ідентичностей може виступати індикатором стратегічної значимості України як середовища для роботи та особистої реалізації

**Ключові слова:** воєнні дії; спільнотна ідентифікація; екологічна відповідальність; екологічна поведінка; громадянська ідентичність

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# Personalised video recommendation system and its potential role as a trigger of addiction

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**Abstract.** The influence of search engine algorithms on society's collective thinking is substantial. Initially, engineers aimed to develop algorithms that would provide optimal results for relevant keywords. However, the focus later shifted towards implementing personalised search methods that could deliver the best results tailored to individual users. Personalised search is a feature designed to enhance user engagement by analysing and profiling their previous search interests, with or without explicit user consent. Through advanced technology and refined machine learning techniques, popular websites and applications store and analyse user preferences. For content developers, particularly those offering video content, the primary goal of personalised search algorithms is to increase users' time spent on pages. However, the psychological consequences of this approach remain ambiguous, as it could heighten vulnerability to dependency signals and trigger a fascination with appealing behavioural patterns. This is especially problematic for individuals who are already dependent on specific habits, such as internet addiction, gaming, pornography addiction, or obesity and are striving to limit their susceptibility to dependency signals. For instance, if a person with obesity is advised to watch videos featuring food-related cues, it might hinder their ability to restrict food consumption. Prior investigations are analysed in this study to explore the potential repercussions of personalised search recommendation systems on dependency. Considering the proposed mechanisms of dependency, addressing these aspects becomes essential to mitigate the risk of undesired influence from captivating dependency signals. Thus, the purpose of this study is to identify the relationship between personalised search and the emergence of dependency, shedding light on this crucial issue

**Keywords:** personalised search; video recommendation system; addiction; addiction cues

## INTRODUCTION

The introduction of personalised search represents an innovative approach that has the potential to profoundly alter the habits and lives of numerous internet users. This is particularly evident in the case of personalised video recommendation systems that utilise machine learning (ML) and directly influence behaviour through visual cues. However, a lack of understanding regarding the underlying goals of personalised search can leave internet users with a limited understanding of the nature of these changes, thereby affecting the effectiveness of the personalised search method.

The presence of addiction further exacerbates the issue, imposing a considerable burden on governments in terms of treatment expenses, such as addiction clinics and specialised addiction treatments. Additionally, excessive engagement in addiction-related activities

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can lead to reduced productivity, further compounding the socioeconomic impact. In the specific context of personalised search and addiction, notable examples include internet addiction and porn addiction. Summarising, the study seeks to investigate the potential outcomes of personalised search recommendation systems on addiction by analysing previous papers.

## MATERIALS AND METHODS

A narrative review methodology was used to review the literature. The search yielded a collection of papers that examine the literature on personalised video recommender systems.

## RESULTS AND DISCUSSION

Various studies related to personalised search and its impact on people were analised. In summary, personalised search is an innovative method that has the potential to bring about substantial transformations in the habits and lives of internet users. However, the lack of understanding regarding its goals can hinder users' ability to comprehend the direction of these changes. Moreover, addiction, including internet addiction and porn addiction, poses substantial challenges, both in terms of treatment costs and reduced productivity, within the context of personalised search and its impact on individuals and society. Internet addiction, in particular, inflicts damage on individuals' lives, manifesting in neurological complications, psychological issues, and social problems (Cash *et al.*, 2012).

D. Jannach & M. Ludewig (2017) note that many of today's sites use recommendation technologies to create personalised item suggestions for the visitors. A recommendation system designed by personalised search can be aware of the users' desires and provide a vast amount of relevant content to keep them online. Customised search results can consider both weekdays and weekends, according to the fact that individuals may exhibit distinct behaviours during weekends compared to weekdays when they are working (Tripathi *et al.*, 2019).

Personalised video recommendation techniques concentrate on leveraging user profiles to accurately represent and understand user preferences (Deng *et al.*, 2015) using bots (Speretta & Gauch, 2005). There is a limited body of literature exploring the connection between personalised search and addiction. Specifically, the mechanisms through which the YouTube video recommendation system may contribute to potential addiction remain unclear.

A study criticised the personalised search approach as the static assumption is insufficient to reflect users' dynamic interests, especially in the video recommendation section with substantial changes of contents of videos (Gao *et al.*, 2017). However, another study claimed that personalised search has improved over web search on some queries but has little effect on other queries and may even harm search accuracy (Dou *et al.*, 2007).

The findings of a different study demonstrated certain patterns of network interactions in response to videos and provided insights into mechanisms by which behaviour of internet users are biased by personalised recommendation systems (Su *et al.*, 2021). While personalised recommendation systems offer tailored content and improved user experience, their implications on addiction are still relatively unexplored.

## CONCLUSIONS

Ultimately, assessing critical risk factors associated with a personalised video recommendation system regarding addiction susceptibility is important. Therefore, websites and especially video applications should provide information about the potential risks of personalised search and addiction. Moreover, they should provide an option to search without personalised suggestions.

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The authors declare no conflict of interest.

## REFERENCES

[1] Cash, H., Rae, C.D., Steel, A.H., & Winkler, A. (2012). Internet addiction: A brief summary of research and practice. *Current Psychiatry Reviews*, 8(4), 292-298. doi: 10.2174/157340012803520513.

[2] Deng, Z., Yan, M., Sang, J., & Xu, C. (2015). Twitter is faster: Personalized time-aware video recommendation from twitter to youtube. *ACM Transactions on Multimedia Computing, Communications, and Applications*, 11(2), 31. doi: 10.1145/2637285.

[3] Dou, Z., Song, R., & Wen, J.-R. (2007). A large-scale evaluation and analysis of personalized search strategies. In *Proceedings of the 16th international conference on World Wide Web* (pp. 581-590). New York: Association for Computing Machinery. doi: 10.1145/1242572.1242651.

[4] Gao, J., Zhang, T., & Xu, C. (2017). A unified personalized video recommendation via dynamic recurrent neural networks. In *Proceedings of the 25th ACM international conference on Multimedia* (pp. 127-135). New York: Association for Computing Machinery. doi: 10.1145/3123266.3123433.

[5] Jannach, D., & Ludewig, M. (2017). Investigating personalized search in E-commerce. *Proceedings of the thirtieth international Florida artificial intelligence research society conference (FLAIRS 2017)*. Palo Alto: AAAI Press.

[6] Speretta, M., & Gauch, S. (2005). Personalized search based on user search histories. In *Proceedings of the 2005 IEEE/WIC/ACM international conference on web intelligence (WI'05)*. Compiegne: IEEE. doi: 10.1109/WI.2005.114.
[7] Su, C., Zhou, H., Wang, C., Geng, F., & Hu, Y. (2021). Individualized video recommendation modulates functional connectivity between large scale networks. *Human Brain Mapping*, 42(16), 5288-5299. doi:10.1002/hbm.25616.
[8] Tripathi, A., Ashwin, T.S., & Guddeti, R.M.R. (2019). Emoware: A context-aware framework for personalized video recommendation using affective video sequences. *IEEE Access,* 7, 51185-51200. doi: 10.1109/ACCESS.2019.2911235.

## Система персональних відеорекомендацій та її потенційна роль у сприянні розвитку залежності

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**Анотація**. Вплив алгоритмів пошукових систем на колективне мислення суспільства є значним. Спочатку інженери ставили за мету розробити алгоритми, що забезпечували оптимальні результати для відповідних ключових слів. Однак згодом увага була переключена на впровадження персоналізованих методів пошуку, які мали надавати найкращі результати, адаптовані під індивідуальних користувачів. Персоналізований пошук – це функція, спрямована на покращення залученості користувачів, шляхом аналізу та профілювання їх попередніх пошукових інтересів, за або без явної згоди користувача. За допомогою передових технологій та вдосконаленим методам машинного навчання, популярні веб-сайти та додатки зберігають та аналізують вподобання користувачів. Для розробників контенту, особливо тих, хто пропонує відеоконтент, головною метою алгоритмів персоналізованого пошуку є збільшення часу, який користувачі проводять на сторінках. Однак психологічні наслідки такого підходу залишаються неясними, оскільки він може збільшити вразливість до сигналів залежності та викликати пристрасть до привабливих моделей поведінки. Це особливо проблематично для людей, які вже залежні від конкретних звичок, таких як інтернет-залежність, геймінг, залежність від порнографії чи ожиріння, і намагаються обмежити свою вразливість до сигналів залежності. Наприклад, якщо людині з ожирінням рекомендують дивитися відео з сигналами, пов'язаними з їжею, це може заважати їй обмежити споживання їжі. Для вивчення можливих наслідків систем персоналізованих рекомендацій пошуку на залежність, в даній роботі були проаналізовані попередні дослідження. З урахуванням запропонованих механізмів залежності важливо розглядати ці аспекти, щоб зменшити ризик небажаного впливу залучаючих сигналів. Таким чином, дана робота спрямована на аналіз зв'язку між персоналізованим пошуком та виникненням залежності, розкриваючи цю важливу проблематику

**Ключові слова:** персоналізований пошук; система відеорекомендацій; залежність; сигнали залежності

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# Homelessness and suicidality: How new emigrants confront the dilemma? Evidence from existing research conducted in Canada

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**Abstract.** The purpose of this study, framed under a systematic review design, is to extract specific evidence about how homelessness is associated with suicidality among new emigrants to Canada. A database search strategy was adopted, and bias in the selection of studies was avoided by consulting with two independent reviewers. 18 studies were sampled purposively. It is concluded that emigration to Canada is an important component of Canadian society. However, like other social processes there are certain cons of migration to Canada. The newly emigrated individual confronts economic vulnerability, whereby homelessness is one of its outcomes. Homelessness is directly and indirectly associated with suicidality

**Keywords:** suicidality; emigration; mental health; homelessness

## INTRODUCTION

Migration to Canada (emigration) is one of the hallmarks of Canadian society. Individuals from Arab and Asian regions found Canada to be a place of opportunities due to its acceptance and tolerance of different cultures, nationalities, etc. However, emigrants, specifically those who move to Canada for employment, still face substantial problems upon arrival. They face numerous problems, but an important issue or problem is homelessness. Homelessness in Canada is common among new immigrants, though emigrants in Canada who have settled for years also face this issue. Homelessness and mental health problems are linked. This systematic review focuses on homelessness as a precursor for mental health problems leading to suicide and related behaviours.

## MATERIALS AND METHODS

This is a systematic review based on searching through keywords in selected databases. The bias was avoided by sending the selected papers to 2 independent reviewers who were university professors in sociology. The databases include Sociological Abstracts (showing 870 results), EBSCOhost (showing 21 results), and Academic Search Complete (provided with 3 highly

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specific publications). 18 studies were sampled purposively, and criteria included a) research must be conducted in Canada, b) research should be specific to homelessness and mental health, and c) the research must be focused on suicidality as an outcome of homelessness directly or indirectly.

## RESULTS AND DISCUSSION

A study by P. Kissoon (2010) found that immigrants are one of the most vulnerable social groups to be homeless in Canada. Higher levels of poverty substantially contribute to homelessness among them. Emigrants, specifically those who are new to Canada and the United Kingdom, are often dealt with by welfare organisations. For many years, they often don't find themselves able to have their own residence, even on rent. For some, homelessness becomes an issue for their whole life.

A study by P. Miller *et al.* (2004) is also specific to homelessness in Canada. The study shows that homelessness is widespread in Canada among young persons, as the majority of immigrants are young persons. The percentage of homeless youth is as high as 24% in Calgary. The purpose of emigration is in search for better employment and education. The experiences of emigrants to Canada are often negative, for example, negation, stress, lack of sleep, food scarcity, etc. This put them on the brink of psychological issues as well. The authors describe the issues associated with homeless youth in Canada, for instance, homeless youth are at high risk of becoming victims of violence and exploitation. The researchers refer to numerous studies that demonstrate the connection between mental disorders and homelessness by comparing homeless and non-homeless youth. Life on the streets is a sort of nightmare for homeless individuals in Canada.

C.H. Lindquist *et al.* (1999) explained that emigrants are vulnerable to many health-related complications. The majority of them are psychological; however, physical illnesses and symptoms also prevail. New immigrants are susceptible to stress and anxiety, which, in many instances, leads to depression as well. The reasons are unmet needs, unemployment, and homelessness. Suicide is a global concern. There is no country free of the dilemma of suicide. However, suicide is relative; for example, the numbers, the causes, and patterns also vary.

L. Sher (2010) investigated the socio-cultural determinants of suicide in Canada. The study is substantial in terms of framing suicide in Canada under economic theories or frameworks. However, the social variable, indicators, and attributes are also framed under economic variables. For example, the social aspects are theorised under economic frameworks. Firstly, gender has been conceptualised in terms of unemployment rates. It is evident that higher unemployment rates put men at higher risk of mental illness and suicidal ideation. Masculinity may be an attribute and mediating factor in this connection, such as men are expected to earn and take care of family, whereby failure leads to stress, mental illness, and suicidality. Secondly, the author found that per capita income affects mental health; for instance, widespread unemployment and mental health indicators are substantially correlated. The lower the per capita income, the worse the mental health indicators. Intriguingly, the study also indicates that societies with less per capita income and higher unemployment rates have higher levels of alcohol consumption. Alcohol consumption, on the other hand, is linked with mental illnesses and, concomitantly, suicide. For emigrants at the early stage, the unemployment rates are high, and therefore, low per capita income and alcohol consumption are evident. This may be an important indicator of suicidality among immigrants. Thirdly, the researcher mentions risk-taking behaviours whereby suicide is included in such behaviours. There is no doubt that low income is linked with risk-taking behaviours, and this is true for emigrants, at least in the early days of migration. The author called it the role of occupational stress in mental illness, leading to suicidality. Cyclical fluctuations in income are highly evident in the lives of emigrants, and in Canada, it certainly leads to mental illness and results in suicidality. For emigrant individuals, low income and occupational stress are substantial risk factors. As a matter of fact, they lack integration, such as friends and family. Further, the policies are also important for immigrants, as there is evidence that Canada's migration policies are not very friendly. This makes the situation worse for them in terms of income, occupational stress, alcoholism, and mental illnesses. The author also mentions Canada's suicide prevention policies, for example, the failure to implement the United Nations guidelines.

Homelessness and problems in life are connected. Unmet needs, stigma, and mental health are also connected in this connection. C.F. Wong *et al.* (2016) established that homelessness is substantially correlated with mental health problems. On the minor side, stress and anxiety are the common issues, while depression and even bipolar disorders are the major ones. An argument made by M. Gutwinski *et al.* (2021) illustrate that homelessness is a concern for many European countries, specifically due to higher emigration rates. There is substantial evidence that the mental health of homeless people is worse as compared to the non-homeless. In psychiatric wards, the visits of homeless people are substantial, whereby homelessness is labelled as a major indicator for minor and major mental health problems.

Homelessness is a global issue; however, certain social groups are more vulnerable to being homeless. Emigrants are one of such social groups who are highly vulnerable to being homeless. Conceptualising the homelessness is also important. Homelessness is a situation or condition whereby one does not have a regular and/or fixed place to sleep at nighttime. Next are its numbers: About 0.7 per cent of the general population in Canada and the United States remain homeless, whereas as high as 33% of new immigrants remain homeless for the first month of their migration. This means that 33% of immigrants are vulnerable to mental illness in the US and Canada. There is also another sort of relationship. For example, mental illness among emigrants leads to homelessness. Stress is the most common culprit; stress and depression are linked with decreased interest in work. This often is the result of living away from families, which may lead to mental illness, and loss of work in another country means homelessness. Therefore, there is a two-way relationship; firstly, emigrants remain unemployed for some time, leading to homelessness; secondly, mental illness affects their work performance, leading to unemployment and homelessness. However, whichever is the case, homelessness and emigration are linked along with the mediating factor, which is mental illness. In between are the different attributes, including drug use, loneliness, lack of social support, stress, social stigma, negation, etc. (Nishio *et al.,* 2017).

Bipolar illnesses or disorders substantially affect an individual's ability to control and express emotion, or one can say that there is a lack of balance between control and expression. At least, there is a lack of balance when compared to the general population. This situation is a problem on its own; however, it affects individuals' relationships and interaction patterns. This substantially affects not only familial life but also the workplace. Family and friends are more adaptive in terms of taking care of and avoiding behaviour issues, whereas at the workplace, often, there is a lack of blood relationships and the emotional attachment associated with it. In addition, loss of energy and lack of concentration are also the outcomes of bipolar mood disorders, resulting in loss of job for many. This results in the loss of jobs for many, which means homelessness for a few such people. Simply, mental illness is one of the causes of homelessness in Canada. On the other hand, it is also evident that mental illnesses are common among emigrants. Therefore, there is a two-way relationship. Statistically, it is evident that there is a 4-fold higher probability of mentally ill people becoming unemployed at a time, leading to homelessness (Oh *et al.,* 2015).

The mental health situation is also connected with physical health as well. Poor mental health leads to poor physical health; it is a simple hypothesis that is proved by a bulk of studies. Poor physical health related to mental health leads to exacerbating situations at the workplace, often resulting in loss of job. Loss of jobs for a few individuals means homelessness. The routine social interaction and findings and maintaining ways to get a permanent or relatively steady source of income is a challenge for people with mental illness that also affects their physical health (Bacciardi *et al.*, 2017).

There is another essential attribute and mediating factor between mental illness and homelessness, which is fear of being homeless. Homelessness is the outcome of a population explosion or an unplanned demographic process. In recent times, as evident from studies, fear and anxiety of being homeless is an important aspect of mental health research. Many people develop a mental illness because they predict that their job or profession is not sustainable, and they can be homeless at any time. When such stress is exacerbated, it can lead to suicidal ideation as well, which is evident among very few individuals, but still, it cannot be sidelined. For such people who become homeless and priorly they predicted it, the life stressors exacerbate. They already have fears and anxieties, and the stress levels are exacerbated whereby additional stressors in their lives, such as feeling unsafe and social stigma, also start circling around them. This adds to problems such as isolation and scarcity of food; for many, getting help to eat food is a substantial stressor (Fitzpatrick *et al.*, 2007).

A study by M. Pinillo (2020) is substantial regarding mental illness and homelessness. Homeless people are highly vulnerable to assaults in Canada. For example, statistics show that 56.9 per cent of people who are homeless have confronted some violence, which is substantially higher compared to the general population. In simple words, homeless individuals are vulnerable to crime. The author established that individuals confronting crime, witnessing crimes, and being victims are more vulnerable to mental illness along with developing suicidal ideation. However, one attribute is important, which is the duration of homelessness; for example, if it is lengthy, the probability of mental illness and suicidality increases.

An argument made by S. Fitzpatrick *et al.* (2013) is important. Homelessness plays a substantial role in avoiding social activities, as the majority of individuals cannot bear the burden of the social stigma associated with homelessness. Some specific mental illnesses are evident in the case of avoiding social activities due to social stigma resulting from homelessness, including cognitive deterioration and depressive symptoms to be specific. Statistics are fearful for homeless people in terms of depression as it is identified by many studies that approximately 60% of homeless exhibits some depressive symptoms. The most common reason among these people is avoiding and withdrawing from societal obligations. The authors believe that a solution is a social integration where the communal and governmental responsibilities are important to be considered. The more efforts for homeless people in the context of integrating them into society, the less the probability of mental illness and suicidal ideation.

K.J. Hodgson *et al.* (2014) determined that depressive symptoms among homeless people are also linked with routine and daily troubles. The most notable issues are meeting food-related needs and the lack of privacy;

in the case of communal services, the stay facilities are overcrowded, and there are feelings of being unsafe among the undesired fellows. It was established that individuals confronting these problems are at 3-fold higher risk of developing suicidal ideation following mental illness.

C.F. Wong *et al.* (2016) determined that self-injury behaviours are commonly identified among homeless individuals. In England, many studies confirmed that homelessness has been one of the causes of deliberate self-harm. R. Eynan *et al.* (2002) investigated different aspects of homelessness contributing to suicidality. In this regard, for example, the timing and duration of homelessness were an [illegible] aspect. The correlation is simple: the longer the duration of homelessness, the more increased the risk of suicide and related behaviours. The mediating factor was mental illness. Thus, if homelessness leads to mental health issues, it can lead to suicidal ideation. Further, the study produced intriguing results in the context of gender, homelessness, and suicidality. For example, men are identified to be at higher risk of developing risks of suicidal behaviours compared to women. One factor in this connection was the percentage of men being homeless, such as there is a higher number of homeless people who are emigrants to Europe. Mental illness was identified to be the most important indicator of suicidal ideation.

E. Lau *et al.* (2017) investigate specifically regarding depression, emigration, and suicidal ideation. Situations confronted by emigrants are the root cause of mental illnesses leading to suicidality. The difficulties in life, specifically at the early stage of emigration, are substantial. If the duration of difficulties faced is lengthy, there is a higher probability of poor physical and mental health. Poor physical and mental health is strongly correlated with suicidal ideation among new emigrants. The authors conceptualised the emigration stress. Emigration stress includes a broad range of variables. Leaving family behind exacerbates stress levels. Interacting with new people at the place of destination creates new stressors. Loss of social position and having the status of being an emigrant leads to burdensomeness. Being homeless adds to this condition, leading to higher stress levels, which often convert to minor and major depression. Minor and major depression are substantial indicators in terms of the development of suicide and related behaviours.

Homelessness is the outcome of financial problems. Financial problem with any doubt is key concerns for emigrants. For majority of emigrants financial problems are inevitable. This is one of the reasons for homelessness, and homelessness creates stress, stigma and an inferiority complex, leading to suicidality. There is another sort of connection between emigration, homelessness, and suicidality. There is another indicator, substance use and abuse. The stressors in the life of emigrants compel them to relieve their stress through substance, and it is evident from research so far that emigrants are at risk of substance abuse. The feelings of being alone and away from family, when combined with living alone, lead to feelings of burdensomeness and suicidal ideation.

Linking suicidal and related behaviours with homelessness among migrants is a crucial area of researchers for social researchers. In this regard, T. Okamura *et al.* (2014) state that emigrants who are homeless are at increased risk of attempting suicide, specifically suicidal ideation, which is as high as 41%. 17% of such people suffer from serious suicidal and related behaviours. However, researchers also add other attributes that mediate between emigration, suicidality, and homelessness. It includes previous history of suicidal thoughts, gender, and previous life experiences such as painful events in life. Gender specifically plays an important role. It is a fact that the majority of immigrants are men; therefore, rates of suicide attempts among men are higher as compared to women. Another factor identified was that men often remain homeless for longer periods; it is because of societal response whereby gendered perceptions lead to a relatively quick response to women to get out of poverty and homelessness, whereas men being masculine are considered as tough, receiving minimal societal response in case of homelessness. Like previously mentioned studies, the authors also assert that homelessness leads to suicidal ideations. However, the relationship is not a direct one. Rather, mental illness is the precursor.

[illegible]. Lee *et al.* (2017) determined that schizophrenia is one of the mentionable mental illnesses identified in homeless people, particularly those remaining homeless for 5 years. 10 per cent of individuals living homeless for more than 5 years are reported with schizophrenia symptoms which is quite high as compared to the general population.

J.H. [illegible] (2013) assert that Canada's government so far has not been successful in dealing with suicide as a public health issue. Since 1920, suicide has been continuously reported in Canada, and the statistics are exacerbating instead of improving. The suicide prevention strategy is there, but there is a need for applicability to specific populations such as immigrants, the elderly, individuals with mental illness, etc.

## CONCLUSIONS

It is concluded that emigrants are one of the most vulnerable social groups to be homeless in Canada. Higher levels of poverty substantially contribute to homelessness among them. Homelessness is widespread in Canada among young persons, as the majority of emigrants are young. The percentage of homeless youth is as high as 24% in Calgary. Emigrants are vulnerable to many health-related complications, including physical and psychological. These are due to their socio-economic status. Like homelessness, suicide is a global concern.

There is no country free of the dilemma of suicide. However, suicide is relative; for example, the numbers, the causes and patterns also vary. There are numerous socio-cultural determinants of suicide in Canada. It ranges from individual level to group level. For emigrants, the situation is the same, whereby personal status and socioeconomic status lead to suicidal ideation. For immigrants in Canada, the key causes of suicide include low per capita income, unemployment, occupational stress, and cyclical fluctuations in income. Such an economic situation among immigrants in Canada is linked to homelessness and homelessness leads to mental illness. Mental illnesses among emigrants are inevitable facts in Canada. Mental illness among immigrants is the outcome of the socio-economic conditions caused by homelessness, for example, poverty, social negation, social stigma, uneasy routine life, etc. Thus, homelessness creates conditions for mental health determination, such as stress, anxiety, and depression, which are culprits for suicide and related behaviours. The synthesis of the review is that there is a three-way relationship; for example, mental illness is common among emigrants, leading to suicidality; homelessness is common among emigrants, leading to suicidal and related behaviour; therefore, socio-economic conditions of emigrants can lead to homelessness or mental illness which are associated leading to suicidal and related behaviours.

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## CONFLICT OF INTEREST

The author declares no conflict of interest.

## REFERENCES

[1] Bacciardi, S., Maremmani, A.G.I., Nikoo, N., Cambioli, L., Schütz, C., Jang, K., & Krausz, M. (2017). Is bipolar disorder associated with traumatic brain injury in the homeless? *Rivista di Psichiatria*, 52(1), 40-46. doi: 10.1708/2631.27053.

[2] Eynan, R., Langley, J., Tolomiczenko, G., Rhodes, A.E., Links, P., Wasylenki, D., & Goering, P. (2002). The association between homelessness and suicidal ideation and behaviors: Results of a cross-sectional survey. *Suicide and Life-Threatening Behavior*, 32(4), 418-427. doi: 10.1521/suli.32.4.418.22341.

[3] Fitzpatrick, K., Irwin, J., Lagory, M., & Ritchey, F. (2007). Just thinking about it: Social capital and suicide ideation among homeless persons. *Journal of Health Psychology*, 12(5), 750-760. doi: 10.1177/1359105307080604.

[4] Fitzpatrick, S., Bramley, G., & Johnsen, S. (2013). Pathways into multiple exclusion homelessness in seven UK cities. *Urban Studies*, 50(1), 148-168. doi: 10.1177/0042098012452329.

[5] Gutwinski, S., Schreiter, S., Deutscher, K., & Fazel, S. (2021). The prevalence of mental disorders among homeless people in high-income countries: An updated systematic review and meta-regression analysis. *PLOS Medicine*, 18(8), article number 1003750. doi: 10.1371/journal.pmed.1003750.

[6] Hammer, J.H., Vogel, D.L., & Heimerdinger-Edwards, S.R. (2013). Men's help seeking: Examination of differences across community size, education, and income. *Psychology of Men & Masculinity*, 14(1), 65-75. doi: 10.1037/a0026813.

[7] Hodgson, K.J., Shelton, K.H., & van den Bree, M.B.M. (2014). Mental health problems in young people with experiences of homelessness and the relationship with health service use: A follow-up study. *Evidence-Based Mental Health*, 17(3), 76-80. doi: 10.1136/eb-2014-101810.

[8] Kissoon, P. (2010). From persecution to destitution: A snapshot of asylum seekers' housing and settlement experiences in Canada and the United Kingdom. *Journal of Immigrant & Refugee Studies*, 8, 4-31. doi: 10.1080/15562940903575020.

[9] Lau, E., Hamzah, S.N.Z., Tan, S.C.C., & Simonetti, B. (2017). Suicide and socio-economic determinants in Canada: Beyond morality and philosophy. *Quality & Quantity*, 51, 1843-18[illegible]. doi: 10.1007/s11135-016-0370-x.

[10] Lee, C., Oliffe, J.L., Kelly, M.T., & Ferlatte, O. (2017). Depression and suicidality in [illegible] men: Implications for health care providers. *American Journal of Men's Health*, 11(4), 910-919. doi: 10.1177/1557988316685492.

[11] Lindquist, C.H., Lagory, M., & Ritchey, F.J. (1999). The myth of the migrant homeless: An exploration of the psychosocial consequences of migration. *Sociological Perspectives*, 42(4), 691-709. doi: 10.2307/1389580.

[12] Miller, P., Donahue, P., Este, D., & Hofer, M. (2004). Experiences of being homeless or at risk of being homeless among Canadian youths. *Adolescence*, 39(156), 735-755.

[13] Nishio, A., Horita, R., Sado, T., Mizutani, S., Watanabe, T., Uehara, R., & Yamamoto, M. ([illegible]). Causes of homelessness prevalence: Relationship between homelessness and disability. *Psychiatry and Clinical Neurosciences*, 71, 180-188. doi: 10.1111/pcn.12469.

[14] Oh, H., DeVylder, J.E., & Chen, F. (2015). To treat or not to treat: Responding to psychotic experiences. *The British Journal of Social Work*, 45(7), 2003-2019. doi: 10.1093/bjsw/bct199.

[15] Okamura, T., Ito, K., Morikawa, S., & Awata, S. (2014). Suicidal behavior among homeless people in Japan. *Social Psychiatry and Psychiatric Epidemiology*, 49(4), 573-582. doi: 10.1007/s00127-013-0791-y.

[16] Pi[illegible]lo, M. (2020). Precursors and outcomes: A look at mental health in relation to homelessness. *Modern Psychological Studies*, 26(1), 1-26.
[17] She[illegible] (2010). A model of suicidal behavior among depressed immigrants. *Expert Review of Neurotherapeutics*, [illegible] 5-7. doi: 10.1586/ern.09.122.
[18] Wong, C.F., Clark, L.F., & Marlotte, L. (2016). The impact of specific and complex trauma on the mental health of homeless youth. *Journal of Interpersonal Violence*, 31(5), 831-854. doi: 10.1177/0886260514556770.

## Бездомність і схильність до самогубства: як нові імігранти стикаються з дилемою? Докази наявних досліджень, проведених у Канаді

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**Анотація**. У рамках систематичного огляду, дане дослідження мало на меті отримати конкретні докази взаємозв'язку між бездомністю та схильністю до самогубства серед нових емігрантів до Канади. Була використана стратегія пошуку в базах даних, а вибір досліджень здійснювався без упередженості завдяки консультації з двома незалежними рецензентами. Загалом, було відібрано 18 робіт за цільовим підходом. Встановлено, що міграція до Канади є важливою складовою канадського суспільства. Проте, як і у випадку інших соціальних процесів, міграція супроводжується певними негативними аспектами. Новоприбулі особи стикаються з економічною вразливістю, що може призвести до бездомності, яка, у свою чергу, прямо чи опосередковано пов'язана з підвищеною схильністю до самогубства

**Ключові слова:** суїцидальність; еміграція; психічне здоров'я; бездомність

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# Beyond methodology: Theoretical foundations of triangulation in qualitative and multi-method research: A literature review

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**Abstract.** The study examines the concept of the "triangulation approach" in the social research methodology. Triangulation is an innovative method, particularly in qualitative and multi-method research. Social scientists have recently shown active interest in applying the triangulation approach, especially for conducting in-depth research using multiple inquiries. However, this method faces criticism and misunderstanding among social researchers regarding its essence, methodology, and the credibility of the results obtained. Therefore, this study thoroughly analyses the essence of triangulation and demonstrates the types of this approach and its possibilities in social sciences. The research methodology is based on a systematic review of the literature, using 31 studies published in scientific journals. The study critically analyses publications related to triangulation, demonstrates various methods of applying triangulation in social sciences, and emphasises the advantages and limitations of its use. The theoretical contribution of the study lies in uncovering the essence of the triangulation approach and its relationship with qualitative and multi-method research. In addition, the empirical component of the study significantly improves the methodological aspect of social sciences, contributing to a proper understanding and application of the triangulation approach among researchers in this field

**Keywords:** triangulation; qualitative research; multi-method approach; social sciences; different sources

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## INTRODUCTION

Many disciplines and sectors are now employing triangulation in their qualitative studies. This paper examines a wide range of disciplines that have adopted triangulation, including education, health, management, and the social sciences. Triangulation involves using multiple studies or sources in the examination to gain a deep understanding of the research problem or phenomenon being analysed (Begley, 1996). However, M. Oppermann's (2000) "Triangulation – a methodological discussion" describes how the basic concept of triangulation is often easily misunderstood, being seen as a simple approach to combining qualitative and quantitative data collection methods. Nevertheless, because there are no connections between these collection methods, this multi-methodological approach will only cross-validate the results to a limited extent (Oppermann, 2000). The term "triangulation" derives its name from its implied reliance on independent fixed points, observing the results, or authenticating the methods (McFee, 1992). G. McFee (1992), further exploring triangulation, specifically in educational research, stated that "triangulation across techniques creates fixed points at the cost of losing sight of the underlying issue or problem, whereas triangulation within a method produces a specific incident in return for the breakdown of fixed points".

V.A. Thurmond (2001) reviewed published literature and multi-method strategies from 1960, focusing primarily on triangulation, to conduct a study on "The point of triangulation", which sought to identify various types of triangulation strategies and determine when different types of triangulation should be used in research. The author discovered that triangulation is employed to enhance the capability to evaluate qualitative research findings by combining a minimum of two or more theoretical viewpoints, methodological approaches, data sources, investigators, or data analysis techniques. Further, triangulation helps to undermine, refute, or balance a single approach.

There are numerous misconceptions about the use of triangulation. M. Oppermann (2000) discussed triangulation as a research method and provided guidelines for its use in the social sciences. G. McFee (1992) explained triangulation between methods and within methods. This study demonstrates that triangulation between methods requires mutual validation, while triangulation within methods involves examining the same issue from different perspectives. According to V.A. Thurmond (2001), the use of triangulation does not support a flawed study; rather, it may enhance the study's understanding of the phenomenon. However, the researcher must justify why this strategy is employed. The study "Triangulation in social research: Qualitative and quantitative methods can really be mixed" reviewed empiricist, constructionist, and realist issues through triangulation, offering an intellectual review of the debate over pluralism in methodology (Olsen, 2004).

E.P. Jack & A. Raturi (2006) outlined three reasons for emphasising triangulation in their study "Lessons learned from methodological triangulation in management research", which helps future researchers develop more comprehensive theories from a stronger standpoint. The researchers aimed to articulate a comprehensive framework using methodological triangulation during the development of their research strategy. They also sought to address the challenges encountered by researchers when employing methodological triangulation and to make a valuable contribution to management researchers by replicating prior studies.

E.P. Jack & A. Raturi (2006) outlined three reasons for emphasising triangulation in their study "Lessons learned from methodological triangulation in management research": to help future researchers develop more comprehensive theories from a stronger position, to communicate a comprehensive framework using methodological triangulation in research strategy development, to address issues encountered by researchers when employing methodological triangulation, and to provide valuable contributions to management researchers by replicating prior studies.

## WHAT IS TRIANGULATION?

Triangulation was used in 1950 to alleviate potential biases from single methodology implementation in qualitative research. The term is derived from navigation to determine the point by using the angles between two known points (Heale & Forbes, 2013). Qualitative research uses multiple methods or data sources to develop a comprehensive understanding of phenomena. Merging information from different sources is also viewed as a strategy in qualitative research (Carter *et al.*, 2014). According to V.A. Thurmond (2001), triangulation derives its etymology from applying trigonometry to ascertain an unknown point or occasion by utilising the positions of two fixed points spaced apart by a known distance. J. Kimchi *et al.* (1991) define triangulation as using two or more investigators, data sources, methodologic techniques, and theoretical views in the same study. When two or more forms of data are employed in the same study, it is referred to as multiple triangulation (Thurmond, 2001).

R. Heale & D. Forbes (2013) also noted that qualitative data collection is done using more than two types of the same methodology. There are limitations when comparing findings from different perspectives when it comes to different methodologies, such as qualitative and quantitative. In the study "Research methods: Triangulation" conducted by V. Wilson (2014), he explained that, to gather rich data and confirm the research results, more than one approach is used to refer to triangulations. In dictionaries, triangulation is usually defined as: (1) division (of an area) into triangles for surveying purposes; (2) measurement and mapping (of an area) by the use of triangles with a known base length and base angles (Oppermann, 2000).

The term triangulation uses multiple references to locate the exact position of an object. This was picked up from navigation and military strategy. However, when developing theory and deciding on interpretation, many management studies employ triangulation, which originated in the social sciences and psychology (Jack & Raturi, 2006). S.H. Briller *et al.* (2008), in their study on "Implementing a triangulation protocol in bereavement research: a methodological discussion", stated that: "The field of surveying, which employs multiple comparative steps to the precisely measure boundaries or areas, is where the concept of the triangulation originated". Although positivist researchers initially used triangulations to validate study findings, more recent discourse has expanded on the significance of different kinds of triangulations to attain more profound comprehensions of intricate subjects.

Apart from meeting all the requirements and ensuring that all measurements are correct, the critical part of triangulation is that they all have to be related to the question within the triangle (Oppermann, 2000). According to M. Oppermann (2000), Webb, Campbell, Schwartz, & Sechrest were the researchers who introduced the term triangulation into the social science discipline as a research approach. M. Oppermann (2000) stated that "social scientists have borrowed the term triangulation to help describe how the use of multiple approaches to a research question can enable the researcher to zero in on the answers or information sought".

## TRIANGULATION IN QUALITATIVE STUDY

Because qualitative studies are prone to bias, using only one research method can result in data bias. Triangulation can be the primary reason for recognising the dataset. The bias can be varied, such as methodological or instrument bias, data bias, and investigator bias. When the data is biased, the results will also be biased, as the themes or categories will not be included or detected. There may be preconceived categories that will influence the results as well. When the data collection method is only open-ended or close-ended, sometimes participants may not disclose appropriate information depending on the sensitivity of the incident or question. The answers may not be open and true. The information provided may be inaccurate or not recalled correctly. If another method, such as observation, is used in the same study, it may give an exact picture of the nature of the study (Oppermann, 2000).

However, M. Oppermann (2000) argued that at least three measures were required to obtain an accurate result for the study. That being said, three is considered the standard procedure in surveying the origin and is not derived from the "tri" of triangulation. When there is bisection in surveying, it prevents inaccuracies in the measuring instrument or investigator errors, which could lead to calculating the wrong point. Therefore, using a third measurement will ensure the accuracy of the first two measurements, resulting in an accurate final calculation.

Using more measures to investigate a problem through qualitative methods in the social sciences can lead to more confident results. Hence, triangulation should be provided with at least three methodologies. Results from a multi-method approach can provide new insights and offer a more comprehensive explanation of the research issues. Yet, a new perspective beyond the confines of individual methodologies will be gained through a multidimensional approach. Nevertheless, using multi-method approaches with multiple qualitative methods may make reproduction difficult (Oppermann, 2000).

## TYPES OF TRIANGULATIONS

This study identified and discussed various triangulation methods based on existing journal publications selected for this study. These methods include data source triangulation, investigator triangulation, methodological triangulation, theoretical triangulation, and multiple triangulations. According to S.H. Briller *et al.* (2008), there are numerous types of triangulation, including methodological data and investigator triangulation types listed by G.A. Tobin & C.M. Begley (2004). N.K. Denzin (1978) discussed theoretical triangulation, J. Kimchi *et al.* (1991) examined the unit of analysis, V.J. Janesick (1994) explained interdisciplinary triangulation, C.M. Begley (1996) listed communication triangulation, R.L. Foster (1997) outlined conceptual triangulation, and G.A. Tobin & C.M. Begley (2010) discussed collaborative triangulation. All of these triangulation methods need to be compared with the data. However, the literature on research techniques is divided on the number and types of triangulations, their significance, and how they should be defined and integrated. As a result, this study focused primarily on classified types.

## DATA SOURCES TRIANGULATION

According to E.P. Jack & A. Raturi (2006), the findings of this kind of study are enhanced by gathering data through various methods that span across time, space, and individuals. This approach involves including various events, times, locations, circumstances, and people in the research to obtain unique data or identify potential comparable patterns, thereby enhancing confidence in research findings (Thurmond, 2001). Furthermore, this form of triangulation also entails collecting data from different types of entities, including individuals, organisations, families, and communities, to gather diverse perspectives and validate the data (Carter *et* *al.*, 2014). V. Wilson (2014) referenced Flick's (2002) statement in his study, stating, "The first approach is to engage individuals and study groups, including local and temporal contexts, in the research on a purposeful and systematic basis".

Data triangulation, as described by M. Oppermann (2000), involves using the same methodology for different sets of data to either validate or falsify generalisable patterns identified in one data collection.

## INVESTIGATOR TRIANGULATION

This form of triangulation involves multiple observers, coders, or data analysts. Providing information without collaboration lends significant credibility to the observation (Thurmond, 2001). Similarly, N. Carter *et al.* (2014) also noted that two or more researchers contribute to participating in one study, leading to multiple observations and conclusions. Consequently, findings from different perspectives add breadth to the phenomenon of interest. V. Wilson (2014) indicated, "Systematic evaluation of various researchers' effects on the topic and research findings". M. Oppermann, (2000); E.P. Jack & A. Raturi (2006) described investigator triangulation as the use of different backgrounds with the involvement of multiple investigators.

## METHODOLOGIC TRIANGULATION

The term is interchangeably used for multimethod, mixed-method, or method triangulation (Thurmond, 2001). There are two types of methodological triangulation, namely "*within*" and "*between*" methods. V. Wilson (2014) also described that methodological triangulation has subtypes, as mentioned above. The "*Within*" method involves at least two data collection methods (Kimchi *et al.,* 1991). Survey questionnaires are used quantitatively, while observations, interviews, and focus groups are used qualitatively (Thurmond, 2001).

N. Carter *et al.* (2014) highlighted that many methods are used for data collection for the same phenomenon. This method also measures the same object of interest (Oppermann, 2000). According to E.P. Jack & A. Raturi (2006), multiple quantitative or qualitative data sources are used in a single study. In the study "Implementing a triangulation protocol in bereavement research: A methodological discussion", S.H. Briller *et al.* (2008) illustrated that methodological triangulation aids in achieving a broader understanding through insights into the data collection method. It was evident in this study that methodological triangulation impacts the research findings.

## THEORETICAL TRIANGULATION

Theoretical triangulation, as described by T. Hopper & Z. Hoque (2006), involves examining the same dimension of a research problem while simultaneously considering aspects from multiple theoretical perspectives. Rather than imposing a specific theory on the data, this approach develops theory from the current situation. Furthermore, theoretical triangulation involves examining the same dimension of a study problem using elements from various theoretical perspectives simultaneously. Although theorists refer to this as "theoretical pluralism", Z. Hoque *et al.* (2013) named it "theoretical triangulation". They demonstrated how triangulation can extend across numerous difficult theories by utilising neo-institutional sociology theories in conjunction with other theories. Moreover, they noted that to capture the multi-level nuances of a phenomenon through theoretical triangulation, researchers might need to collect data from various sources, such as historical records, in-person interviews, participant observations, observation of management meetings, experiments, and questionnaire surveys.

## MULTIPLE TRIANGULATION

Although not explicitly stated in many studies where researchers referred to it, E.P. Jack & A. Raturi (2006) specifically state that the study was conducted in one situation in combination with multiple observers, theoretical perspectives, data sources, and methodologies.

## HOW TRIANGULATION CAN BE APPLIED IN SOCIAL SCIENCE RESEARCH

In his paper, W. Olsen (2004) argues that triangulation is not for validation; instead, it supports the researcher to understand deeply. This broadened understanding can be gained individually or as part of a team. Pluralism and triangulation, on the other hand, do not bind them to sociology but rather support interdisciplinary research. W. Olsen (2004) elaborated on how individuals, governments, and academics can use mixed-methods and triangulation research to deepen and broaden their understanding of the real world. The potential position of the constructionist viewpoint was explained in the same study. If constructionism is understood as a set of assumptions about society, as associated with philosophy, it may be incompatible with realism.

However, the visibility depends on the glass one usually uses to see them. There is a distinct set of assumptions in realism philosophy and mixed-methods analysis with any structuralism viewpoint. In addition to transitive components, society also consists of lasting, intransitive, and resolutely immovable components (Olsen, 2004). In social science, triangulation has become a standard practice despite potential problems. The most common type of triangulation is likely methodological triangulation. (Wilson, 2014).

In social science, individual interviews are widely used in qualitative research. This allows participants to express their attitudes, beliefs, thoughts, and knowledge in certain research areas through correctly formulated questions. The experience of the participants is reflected in their responses. However, even the interviews may provide adequate data for social science studies, assuming the meaning of the provided words in the interview may be problematic in the following ways:

- associational context (a common characteristic that brings the participants together),
- status context (positions of participants in local or societal status hierarchies),
- conversational context (flow of the discussion and types of discussion within the group),
- relational context (degree of prior acquaintance with participants) will also be influenced by the responses.

Therefore, triangulation in social science leads to understanding the participants' self-image and responses (Lambert & Loiselle, 2008).

## ADVANTAGES AND DISADVANTAGES OF USING TRIANGULATION

While there are numerous advantages to triangulating qualitative studies, there are also some disadvantages to this type of research. Both advantages and disadvantages are analysed as follows:

Strengthening trust in study results; imaginative and inventive understanding; unique discoveries; incorporating theories; challenging theories; enhancing awareness of the issue (Thurmond, 2001); broadening comprehension of the phenomenon of interest (Carter *et al.*, 2014); The type and volume of data generated for interpretation in data triangulations (Thurmond, 2001); Moreover, triangulation not only amplifies the results and enhances validity but also improves dependability by analysing the data, especially qualitative data, by multiple analysts. In addition to reducing potential bias, having multiple investigators with complementary but distinct skill sets also avoids the holistic fallacy, which is the mistaken belief that study participants' opinions represent those of non-participants (Thurmond, 2001).

It is advisable to vary the data collection techniques and methodologies used for methodological triangulation within the same paradigm, as this can reveal important information or distinct differences that might have been missed if a single strategy or data collection methodology had been employed in the study. Data can improve comprehension by highlighting anomalies or exceptional individual examples. It can also strengthen the ability to exclude competing theories for observed change and lessen scepticism regarding findings connected to the change (Thurmond, 2001). Considering several theoretical stances or hypotheses can reduce the number of possible explanations for a phenomenon and offer a more thorough, comprehensive examination of the data. Competing hypotheses also put researchers under pressure to see past the obvious answers, delay accepting explanations that seem plausible too soon, and boost confidence in the conceptual or construct development for theories (Thurmond, 2001); combining distinct viewpoints, analytical techniques, and evidence in different ways. Furthermore, compared to a single approach, such integration can produce more substantial research findings (Briller *et al.,* 2008).

## DISADVANTAGES OF TRIANGULATION

The comparison of single strategies is time-consuming and ineffective in handling large amounts of data. It may also be influenced by the investigator's biases, leading to possible disharmony, theoretical conflicts, and a lack of awareness of triangulation strategies (Thurmond, 2001). Ensuring data dependability and credibility can be challenging because researchers need to employ a variety of strategies. There is a belief that more data is always better, which overshadows concerns about managing different types of data. Analysing focus group discussions and individual interviews may be difficult.

Ad-hoc triangulation may jeopardise the weight of the data, especially when the number of participants is equal (Carter *et al.*, 2014). It can, on the other hand, be a significant issue when interpreting and fitting qualitative data (Thurmond, 2001). Counterbalancing the effects of bias by each researcher is challenging (Thurmond, 2001). Measuring and validating bias is challenging (Kimchi *et al.,* 1991). Researchers may firmly uphold their epistemology, disregarding the advantages of alternative epistemologies (Thurmond, 2001). Conflicts regarding research design may arise from differing epistemological stances, the higher costs of multimethod research, a lack of investigator experience in either method, challenges in integrating narrative and numerical data to comprehend the phenomenon, and editors' hesitation to publish multimethod works. According to V.A. Thurmond (2001), using multiple theories to support a single study may be flawed and not epistemologically sound. Findings do not become more valid and credible just because they are supported by similar theories, which may have relevant constructs and concepts. If opposing theories are chosen for triangulation, interpreting the concepts may be challenging due to their poor differentiation and overlap with the competing theories.

## ISSUES AND LINKAGE IN QUALITATIVE RESEARCH

Individual interviews and focused group discussions, which can vary from structured and regulated to unstructured and fluid, can yield valuable information on human experiences and perspectives, as indicated by N. Carter *et al.* (2014). Independent interviews allow respondents to react naturally and flexibly. However, transcription is time-consuming and costly. On the other hand, since all participants can hear each other, focus group conversations may be influenced and interrupted by them. N. Carter *et al.* (2014) describe interviews as a "dynamic and participatory interchange among participants", while focus group discussions involve "many tales and different experiences". A major criticism of triangulation in the social sciences is that it is often used as a multi-method or multi-theory approach rather than for data and/or investigator triangulation. It is important to distinguish this difference. M. Oppermann (2000) agrees with the objections raised about using the term triangulation to refer to a multi-method approach. Since achieving the "truth" is unattainable, a multi-method approach should be clearly described as such. The addition and depth of knowledge on a particular topic are sources of strength. If people insist on victimisation, the term triangulation should only be used for information triangulation and possibly investigator triangulation, as it is in information triangulation that this author finds its greatest applicability and purest similarity to the term triangulation's roots. Consequently, all measures would be of the same kind and supported by the same ontology and philosophy (Oppermann, 2000).

According to E.P. Jack & A. Raturi (2006), triangulation has limitations in every research technique. There are two types of limitations: method-specific problems and assumption-related problems. Data collected from two sources in a study may not carry comparable weight, as stated by R. Heale & D. Forbes (2013). Therefore, when presenting the results together, researchers must be cautious in interpreting the data gathering discrepancies. Despite this critique, R. Heale & D. Forbes (2013) argue that triangulation enhances the broad understanding of research. S.D. Lambert & C.G. Loiselle (2008) addressed the primary challenge of integrating two methods within the same approach in their study "Combining individual interviews and focus groups to improve data richness". By comparing overlapping and complementary results revealed through side-by-side and non-hierarchical comparisons of data sets, they aimed to achieve a more comprehensive and diverse understanding of patterns. Researchers assume that by using a variety of qualitative techniques, they will be able to improve the analysis of philosophy. However, if the researchers lack experience, the reliability of the results may be compromised (Lambert & Loiselle, 2008).

## MULTI-METHOD QUALITATIVE STUDY AND TRIANGULATION

The qualitative approach allows for "deep, detailed accounts" of changing conditions, making it more suitable for this study (Creswell, 2014). The collection of qualitative data typically depends on the interpretation. Due to the large volume of qualitative material often gathered for this study, the data requires multiple explanations, and the author derives themes from a variety of data sources (Johnson *et al.*, 2017).

Using two or more research approaches is known as a multi-method design. Each project is performed meticulously and comprehensively, and the outcomes are combined to create a comprehensive whole (Esteves & Pastor, 2003). Several study fields have used the multi-method approach to enhance the research process and results. "Multiple methods are used in a research programme when a series of projects are interrelated within a broad topic and designed to solve an overall research problem" (Morse, 2003). The primary advantages of multi-method research include expansion – widening the scope of the study to include contextual aspects of the situation – creativity, which involves finding novel or paradoxical factors that spur further work, and triangulation, which aims to validate data and results by combining a variety of data sources, methods, or observers (Esteves & Pastor, 2003). A more comprehensive image of the unit may be obtained in a single study by gathering various types of data from various sources using various approaches (Esteves & Pastor, 2003).

One of the modern uses for research is multi-method, which has several advantages. Of these five purposes, triangulation is the most widely recognised. It speaks of the coming together or cooperation of data collection and the analysis concerning the same phenomenon. The precise method or format used for collecting and/or interpreting data can differ. Researchers might use investigator triangulation, theoretical triangulation, data triangulation, or methodological triangulation, for instance. The convergence or collaboration of the data regarding the same occurrence is referred to as data triangulation. When two or more investigators work together to collect and evaluate the data, this is referred to as investigator triangulation. Using many theoretical frameworks to inform the conceptualisations of research and the interpretation of results is known as theoretical triangulation. The term "methodological triangulation" describes the practice of collecting data using multiple methods (Morse, 2003). By focusing on the various aspects of a phenomenon rather than only the overlapping or converging data, complementing goes beyond triangulation and offers a wider range of insights and viewpoints (Martha *et al.,* 2007). Development and Expansions: This approach integrates or applies the results of one way to investigate a phenomenon to create a new approach. For example, focus groups can be used to gather input on a questionnaire after it has been piloted (Morse, 2003). Starting: Inception involves a deliberate exploration of novel perspectives on the topic of interest. Expansion: According to D. Martha *et al.* (2007), expansion is the general enlargement of the scope, breadth, or range of a study.

When using mono-qualitative research, the validity and reliability are highly problematic. As a result, this study began to use multi-method studies to validate it. Initially, primary studies are employed, with secondary qualitative approaches selected for their suitability in addressing the exploratory nature and research questions. Multiple methods and designs were adopted for this study to maximise the credibility, dependability, and confirmability of the findings. Qualitative data collection is usually dependent on interpretation. This means that the data requires several explanations (Morse, 2003). This is because this study often collects enormous amounts of qualitative evidence. A variety of data sources are consulted to identify themes. Initially, the researchers chose this method to investigate dust explosions in their industries (Minger, 2001). Once the approach is defined, the research strategy should be determined.

The first theory examines the importance of the idea of theoretical motion. The theoretical approach can be deductive for testing or inductive for discovery. The second theory states that the premises of both processes are valid, and that one can determine whether to operate inductively or deductively at any given time. According to J.M. Morse (2003), there are two types of multimethod designs: sequential and simultaneous. The researcher employed a simultaneous and sequential qualitative research approach to conducting the qualitative study. Qualitative-to-qualitative refers to a project driven by qualitative research followed by another project led by qualitative research, both conducted concurrently. The multi-method approach, according to A.D. Hunter & J. Brewer (2002), "is a tool for overcoming the limitations and disadvantages of each procedure by deliberately combining different approaches within the same investigation". J. Mingers (2001) provides a framework for a multi-method modelling methodology to map research processes. Two primary characteristics of this multi-method research technique are its multidimensionality and the various actions that must be performed at each review stage. In this instance, triangulation is consistent with several approaches and greatly enhances researchers' capacity to pinpoint complex problems in a practical setting.

## VALIDITY AND RELIABILITY

Researchers were able to explore in-depth qualitative findings, internal people's views, external people's views, and hermeneutic views through the use of a triangulation approach in this study's multi-method. Furthermore, researchers in qualitative studies suggest that bringing a group together is inevitably outside the typical "norms". Answers are limited to the questions that are posed (Maxwell, 2009). P.C. Meijer *et al.* (2002) concluded in their study that multi-method triangulation is a worthwhile procedure to enhance the internal validity of qualitative studies on complex topics. Data source triangulation is when two different, independent data sources are used, which increases the validity and reliability of the study.

A qualitative study was conducted over several days of the week, months, and locations. Participant observations occurred in areas designated for meeting individuals and the waiting room where CEOs spend most of their time. Topical oral history sessions were held in a private executive office, while in-depth interviews took place in a separate location, a conference room conducive to sound interaction. The setting for in-depth interviews provided a more meaningful space for conversation and relaxation, whereas the setting for thematic oral history, which was more constrained, offered a more focused and attentive listening environment conducive to the in-depth exploration of personal matters (Santos *et al.*, 2020). This environmental triangulation multi-method study enhances its validity and reliability.

## CONCLUSIONS

In summary, the use of triangulation has evolved from an activity aimed at confirming and complementing results to the integration of numerous viewpoints and now to various types of triangulations to create new and richer analyses. While most of the existing literature outlines different types of triangulation and their operational definitions, few have provided actual protocols based on case studies that clearly define specific procedures and their outcomes.

This triangulation study involves multiple data collection sources, including combined literature sources, documents, in-depth interviews, and a focus group, to enhance its validity. This paper encourages future researchers to use multiple sources in management-related research to increase validity and identify problems with valid evidence from different perspectives. To date, almost all prominent research in management and social sciences has been conducted from a positivist standpoint (Al-Kandi *et al.*, 2013). The contribution of this study stems from the qualitative stance it has taken to understand the phenomenon from the perspective of different data sources.

In qualitative research, data triangulation using focus groups and in-depth individual interviews may result in a deeper understanding of the phenomena of interest. Restricting data collection to one of the two approaches may lead to the exclusion of eligible individuals and a narrowing of the scope of findings by obtaining only a partial understanding of the phenomena of interest. For a better understanding of the implications of this approach and to further explore the differences between focus groups and in-depth individual interview data, additional investigation into the potential methodological issues associated with the combination of focus groups and in-depth individual interview data is required.

However, many inexperienced researchers "use triangulation" while explaining or justifying their choice, as if they assume that just using this method would miraculously eliminate all issues of bias, inaccuracy, and invalidity. This is not the case because triangulation as a research technique must be selected intentionally and for the right reasons, with an appropriate explanation of the reasoning, planning, and execution of the approach provided. As M.B. Miles & A.M. Huberman (1984) state, triangulation is a state of mind. According to them, "If one seeks to obtain and double-check results, utilising various sources and modalities of information, the validation process will be essentially integrated into the data-gathering effort, and nothing more has to be done than report on one's methods".

The key element here is the requirement to "report on one's methods", which is frequently overlooked by inexperienced researchers. Future researchers must also strive to incorporate several kinds of triangulation in their investigations rather than simply technique triangulation, as is often the case. Most importantly, it is crucial to remember that the primary purpose of the study is to expand current knowledge. What better approach to achieve this than to use a technique that serves two purposes: confirming results and ensuring data completeness (Begley, 1996).

Previous findings have primarily relied on a single data source to investigate the factors in a qualitative study. A mono-method qualitative study can consciously or unconsciously influence the selection of a sample that favours an anticipated outcome, which can be a major disadvantage of qualitative research. One of the biggest disadvantages of qualitative studies is self-selection bias. It may arise when companies ask staff to volunteer their views (Maxwell, 2009). The question of how these issues in qualitative studies can be overcome now arises. This study is one of the big solutions to increase credibility and validity in research. The solution is triangulation. As a result, it is recommended that researchers use triangulation in qualitative studies to reduce bias and increase the credibility of the findings. For researchers planning to conduct multi-method studies, triangulation provides rich themes, data analysis, and findings that intersect with both methods.

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## CONFLICT OF INTEREST
The authors declare no conflict of interest.

## REFERENCES
[1] Al-Kandi, I., Asutay, M., & Dixon, R. (2013). Factors influencing the strategy implementation process and its outcomes: Evidence from Saudi Arabian banks. *Journal of Global Strategic Management,* 7(2), 5-15. doi: 10.20460/JGSM.2013715662.

[2] Begley, C.M. (1996). Using triangulation in nursing research. *Journal of Advanced Nursing,* 24(1), 122-128. doi: 10.1046/j.1365-2648.1996.15217.x.

[3] Briller, S.H., Meert, K.L., Schim, S.M., Thurston, C.S., & Kabel, A. (2008). Implementing a triangulation protocol in bereavement research: A methodological discussion. *Omega,* 57(3), 245-260. doi: 10.2190/OM.57.3.b.

[4] Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., & Neville, A.J. (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum,* 41(5), 545-547. doi: 10.1188/14.ONF.545-547.

[5] Creswell, J.W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (4th ed.). Thousand Oaks: Sage.

[6] Denzin, N.K. (1978). *The research act: A theoretical introduction to sociological methods* (2nd ed.). New York: McGraw-Hill.

[7] Esteves, J., & Pastor, J. (2003). Using a multimethod approach to research enterprise systems implementations. *Electronic Journal of Business Research Methods*, 2(2), 69-82.

[8] Foster, R.L. (1997). Addressing epistemologic and practical issues in multimethod research: A procedure for conceptual triangulation. *ANS. Advances in nursing science,* 20(2), 1-12. doi: 10.1097/00012272-199712000-00002.

[9] Heale, R., & Forbes, D. (2013). Understanding triangulation in research. *Evidence-Based Nursing,* 16(4). doi: 10.1136/eb-2013-101494.

[10] Hopper, T., & Hoque, Z. (2006). Triangulation approaches to accounting research. In Z. Hoque (Ed.), *Methodological issues in accounting research: Theories, methods and issues* (pp. 477-486). London: Spiramus Press.

[11] Hoque, Z., Covaleski, M.A., & Gooneratne, T.N. (2013). Theoretical triangulation and pluralism in research methods in organizational and accounting research. *Accounting, Auditing & Accountability Journal,* 26(7), 1170-1198. doi: 10.1108/AAAJ-May-2012-01024.

[12] Hunter, A.D., & Brewer, J. (2002). Multimethod research in sociology. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of Mixed Methods in Social & Behavioral Research* (1st ed.), (pp. 577-594). Thousand Oaks: Sage.

[13] Jack, E.P., & Raturi, A. (2006). Lessons learned from methodological triangulation in management research. *Management Research News,* 29(6), 345-357. doi: 10.1108/01409170610683833.

[14] Janesick, V.J. (1994). The dance of qualitative research design: Metaphor, methodolatry, and meaning. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 209-219). Thousand Oaks: Sage.

[15] Johnson, M., O'Hara, R., Hirst, E., Weyman, A., Turner, J., Mason, S., Quinn, T., Shewan, J., & Siriwardena, A.N. (2017). Multiple triangulation and collaborative research using qualitative methods to explore decision making in pre-hospital emergency care. *BMC Medical Research Methodology*, 17(1), article number 11. doi: 10.1186/s12874-017-0290-z.

[16] Kimchi, J., Polivka, B., & Stevenson, J.S. (1991). Triangulation: Operational definitions. *Nursing Research,* 40(6), 364-366.

[17] Lambert, S.D., & Loiselle, C.G. (2008). Combining individual interviews and focus groups to enhance data richness. *Journal of Advanced Nursing*, 62(2), 228-237. doi: 10.1111/j.1365-2648.2007.04559.x.

[18] Martha, D., Sousa, V.D., & Mendes, I.A. (2007). An overview of research designs relevant to nursing: Part 3: Mixed and multiple methods. *Revista Latino-Americana de Enfermagem*, 15(5), 1046-1049. doi: 10.1590/s0104-11692007000500025.

[19] Maxwell, J.A. (2009). Designing a qualitative study. *The SAGE handbook of applied social research methods* (2 ed.), (pp. 214-253). Thousand Oaks: Sage. doi: 10.4135/9781483348858.

[20] McFee, G. (1992). Triangulation in research: Two confusions. *Educational Research*, 34(3), 215-219. doi: 10.1080/0013188920340305.

[21] Meijer, P.C., Verloop, N., & Beijaard, D. (2002). Multi-method triangulation in a qualitative study on teachers' practical knowledge: An attempt to increase internal validity. *Quality & Quantity*, 36(2), 145-167. doi: 10.1023/A:1014984232147.

[22] Miles, M.B., & Huberman, A.M. (1984). *Qualitative data analysis*. Thousand Oaks: Sage.

[23] Mingers, J. (2001). Combining IS research methods: Towards a pluralist methodology. *Information Systems Research*, 12(3), 240-259. doi: 10.1287/isre.12.3.240.9709.

[24] Morse, J.M. (2003). Principles of mixed methods and multi-method research design. In C. Teddlie & A. Tashakkori (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 189-208). Thousand Oaks: Sage.

[25] Olsen, W. (2004). Triangulation in social research: Qualitative and quantitative methods can really be mixed. In M. Holborn (Ed.), *Development in sociology* (pp. 103-118). Ormskirk: Causeway Press.

[26] Oppermann, M. (2000). Triangulation – a methodological discussion. *Journal of Travel Research*, 2(2), 141-145. doi: 10.1002/(SICI)1522-1970(200003/04)2:2%3C141::AID-JTR217%3E3.0.CO;2-U.

[27] Santos, K.D.S., Ribeiro, M.C., Queiroga, D.E.U., Silva, I.A.P.D., & Ferreira, S.M.S. (2020). The use of multiple triangulations as a validation strategy in a qualitative study. *Ciencia & Saude Coletiva*, 25(2), 655-664. doi: 10.1590/1413-81232020252.12302018.

[28] Thurmond, V.A. (2001). The point of triangulation. *Journal of Nursing Scholarship*, 33(3), 253-258. doi: 10.1111/j.1547-5069.2001.00253.x.

[29] Tobin, G.A., & Begley, C.M. (2004). Methodological rigour within a qualitative framework. *Journal of Advanced Nursing*, 48(4), 388-396. doi: 10.1111/j.1365-2648.2004.03207.x.

[30] Tobin, G.A., & Begley, C.M. (2010). Triangulation as a method of inquiry. In T. Huber (Ed.), *Storied inquiries in international landscapes: An anthology of educational research* (pp. 423-428). Charlotte: Information Age Publishing.

[31] Wilson, V. (2014). Research methods: Triangulation. *Evidence Based Library and Information Practice,* 9(1), 74-75. doi: 10.18438/B8WW3X.

# Поза методологією: теоретичні основи тріангуляції в якісних та багатометодних дослідженнях: огляд літератури

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**Анотація**. Науковий дослід розглядає концепцію «тріангуляційного підходу» у методології соціальних наукових досліджень. Тріангуляція є інноваційним методом, зокрема в контексті якісних та багатометодних досліджень. Вчені в галузі соціальних наук нещодавно виявили активний інтерес до застосування тріангуляційного підходу, особливо для здійснення глибоких досліджень, використовуючи множинні запитання. Однак цей метод стикається із критикою та непорозумінням серед соціальних дослідників щодо його сутності, методики застосування та достовірності отриманих результатів. Отже, у даній статті детально проаналізовано сутність тріангуляції, розкрито різновиди цього підходу та його можливості в соціальних науках. Методологія дослідження базується на систематичному огляді літератури, в рамках якого використано 31 статтю, опубліковану в наукових журналах. У статті критично проаналізовано публікації, пов'язані із тріангуляцією, розкрито різноманітні методи застосування тріангуляції у соціальних науках та наголошено на перевагах та обмеженнях при його використанні. Теоретичний внесок статті полягає в розкритті сутності тріангуляційного підходу та його взаємозв'язку з якісними та багатометодними дослідженнями. Крім того, емпірична компонента дослідження істотно вдосконалює методологічний аспект соціальних наук, сприяючи належному розумінню та застосуванню тріангуляційного підходу серед вчених у даній галузі

**Ключові слова:** триангуляція; якісне дослідження; багатометодний підхід; соціальні науки; різні джерела

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