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THE DEVELOPMENT AND INITIAL VALIDATION OF THE LONELINESS INVENTORY FOR CHRISTIANS (LIFC)

This paper presents the development and initial validation of the Loneliness Inventory for Christians (LIFC), a five-dimensional measure of loneliness. Using data from the sample of 302 believers of different Christian affiliations in Ukraine, analyses of the reliability, validity, and principle factor structure of this preliminary version of the 5-dimensional loneliness measurement were conducted. The results from principal components analyses support the multi-dimensional conceptualization of loneliness, which perceive loneliness as a complex phenomenon reflected in social, intimate, cultural, existential, and spiritual life of an individual. Examination results of the LIFC's relationship to the other criteria such as: UCLA-3 Loneliness Scale, Attachment Relationships Questionnaire (RQ) and the Attachment to God Inventory (AGI) indicated that the LIFC was quite reliable, both in terms of internal consistency (coefficient α Cronbach ranging from .78 - .80), concurrent, and discriminant validity.

Keywords: *social loneliness; emotional loneliness; existential loneliness; cultural loneliness; spiritual loneliness; attachment; inventory; principle factor structure analysis.*

Introduction

The phenomenon of loneliness with its diversity and complexity of manifestations and its wide spread in the modern world has set the task of its holistic study as a phenomenon of spiritual, individual and social life. In a general sense, loneliness is a universal experience to which no age, sex, geographical, individual, religious or cultural boundaries exist. Thus there is a need in developing such a tool that would tap into the different assets of loneliness as well as the roles all these factors may play in forming the experience of loneliness.

There is quite a number of scientific works in Ukrainian context devoted to the questions concerning the role of socio-demographic features in shaping the experience and transformations of loneliness in a life-span, such as age, gender, marital status, a number of friends, etc. In particular, the works of Victoria Hritsenko (2011), Anatoli Sali (2018) and others are devoted to this aspect. Moreover, of particular interest are the works of Iryna Ignatenko (2012), Nataliia Ishchuk (2015), Yevgen Shatalov (2018), and Nataliia Karalash (1999), devoted to philosophical and anthropological dimension of the phenomenon of loneliness as well as the role of the community and communication in the personal identity formation as factors that can eliminate some types of loneliness.

Recently, a trend that explores the relationship of loneliness with religiosity has become popular. Within this trend, that is of exceptional interest to us, it is also widely discussed that the personal intimate relationship of Christians with God, rather than external forms of religiosity (i.e. church attendance, the number and duration of prayers, or scripture reading), is an effective safeguard against loneliness and has profound positive effects on the person's psychological well-being (Palutzian, Ellison, 1982; Clinton, Sibs, 1999; Bradshaw et al., 2008 and others). The relevance of this article is explained by the dearth of

research on interconnections between different types of loneliness and their measurement, which represents a significant gap in our knowledge.

The purpose of the paper is to address this shortcoming by drawing on recent development and initial validation of the loneliness inventory for Christians (LIFC) - a tool specially developed for measurement of the five types of loneliness experienced by Christians in a contemporary Ukrainian context.

There are different conceptual approaches to studying the phenomenon of loneliness. In the most general sense loneliness is understood as an experience of a sharp split of meaningful relationships and connections in the life of the individual. Some researchers (Russell & Peplau, 1978) see loneliness as a phenomenon that has a single essence. This view assumes that loneliness is the same under all circumstances and reasons. The revised UCLA Loneliness Scale (Russell, Peplau & Cutrona, 1980), perhaps the most frequently used loneliness scale, reflects this concept. There is consensus in the scientific community regarding the conceptualization of the UCLA-3 scale as a unidimensional methodological tool that is commonly used for the measurement of loneliness in a more general sense (Cramer & Barry, 1999).

An alternative, and in our opinion, more plausible approach, is to consider loneliness as a multifaceted phenomenon that cannot be measured by a single general scale. In terms of this differentiated approach, for example, the loneliness of a recently widowed person is not equivalent to the loneliness of newlyweds during their honeymoon due to lack of communication with their families and friends. Supporters of the latter conceptual approach are researchers such as Weiss (1975), DiTommaso & Spinner (1993), and Schmidt & Sermat (1983). Robert Weiss was one of the first researchers of loneliness who began to

conceptualize loneliness according to the abovementioned examples as emotional and social by nature. From his point of view social loneliness implies the inadequacy of the social network; it develops when one is deprived of the possibility of meaningful communication at the level of understanding. This type of loneliness one can experience due to poor social skills, or in a situation of long-term business trips to an unknown area, after moving abroad, or becoming a part of a new group. Whereas emotional loneliness results from the lack of intimate relationships in a sense of emotional attachment, when there is no sense of belonging, unity, and acceptance by a significant other person. In this article, we also hold to this view that loneliness is a complex concept, manifested in different aspects of human life, for which special and appropriate measurement tools need to be used.

A number of tools have been developed that aim at measuring different types of loneliness (see *Marangoni & Ickes, 1989*), some of which are based on the typologies of loneliness proposed by Weiss: The Social and Emotional Loneliness Scale for Adults (SELSA) by DiTommaso and Spinner (1993, 1997), the Differential Loneliness Scale (DLS), developed by Schmidt and Sermat (1983).

Further, drawing on recent developments in studies of loneliness, some researches connect social and emotional types of loneliness to the attachment styles that people develop during the first years of their lives. For a better understanding of this concept, we suggest a brief review of the basic ideas of this attachment theory.

Initially the attachment theory was developed by John Bowlby (1969, 1973, 1982). In light of this theory, four basic attachment styles have been identified. One is identified as "secure", and three are identified as "insecure: ambivalent-anxious (or dependent, as it is often referred to in the literature), avoidant, and disorganized. The child's principal caregiver is called an Attachment Figure. Children with a secure attachment style tend to show confidence in their attachment figures, i.e. they seek their company and support, especially in times of stress. Attachment figures, in turn, serve as a "safe haven" and a "secure base" in an uncertain world. The four attachment styles have been found to be based on one's basic beliefs about oneself and others. In particular, people with a secure attachment are characterized by their positive attitude both to themselves and others, comfortable interdependence with others and feelings of affection, trust, closeness and warmth towards their figures of attachment and other close people.

The ambivalent-anxious (dependent) attachment style is characterized by a certain inconsistency, and the attachment figures are perceived as unpredictable - warm, loving and reliable at one time and cold, distant at others. Such children become anxious about their own worthiness, in a constant need for other's approval. This attachment style is often developed in children who have been raised in unstable family situations. As adults such people usually add this over-dependence to their relationships with other people and, as a result, become "clingy", overly demanding.

In contrast, individuals who have an avoidant attachment style tend to deny their need or desire for intimacy, and tend to suppress their true impulses for affection and attachment in order to protect themselves. They believe that they are self-sufficient and that others are neither trustworthy nor reliable. They are constantly cold and distant.

Finally, there is the disorganized or chaotic style of

attachment, which is characterized by fear and confusion. Often brought up in abusive, violent family conditions, such children shy away from intimacy and fear rejection, fearing the very people they seek safety and protection from - a conflict that completely disorganizes their whole concept of love and security in the world. As adults, they tend to question both their own worth and that of others.

Thus, based on Bowlby's attachment theory, scientists who conducted further studies (for example, see *Ainsworth, 1978; Clinton & Sibsey, 2002; Hazan & Shaver, 1992*) have shown that: 1) attachment style is established in early childhood (*Ainsworth, 1978*); 2) although attachment style can change, normally it is a fairly stable construct, and it influences how adults continue to build relationships with other significant people, such as their romantic relationships. In particular, insecure attachment styles (ambivalent-anxious, avoidant, and disorganized) have an adverse effect on the quality and stability of social and personal relationships. Dozens of studies have consistently shown that people with an insecure attachment style report lower levels of satisfaction and less stability in their interpersonal relationships (for the further reference, see: *Mikulincer & Shaver, 2014*); 3) Hazan and Shaver (1992) have also found that people who have any insecure attachment style exhibit a higher level of loneliness. Unfortunately, the abovementioned study by Hazan and Shaver, links insecure attachment styles with the general concept of loneliness with no regard to the type of loneliness.

To assess the interpersonal attachment style, one of the most commonly used tools is the Relationships Questionnaire (RQ) created by researchers Bartolomew and Horowitz (1991) and designed to measure the attachment style in adult relationships. The questionnaire consists of 4 statements, each of which corresponds to secure (A), disorganized (B), ambivalent-anxious or dependent (B) and avoidant (D) attachment styles. The respondent was expected to choose one of the suggested options that best reflects his or her relationship with others.

Incorporating ideas from several of the aforementioned theories, a certain cohort of scholars (*Beck & McDonald, 2004; Bradshaw, Ellison, 2008; Kirkpatrick, 1999*) subsequently aimed to extrapolate the findings of the attachment theory to the realm of religiosity, given that for some people religious beliefs imply more than certain external behaviors, customs or religious practices. Consequently, Kirkpatrick, after conducting numerous studies on this topic, points to the role of attachment in religiosity, especially regarding the conceptualized image of God in the minds of believers. He states that "Christians' belief in a personal God who loves and cares for a person, who is at the same time omnipresent, omniscient and omnipotent, functions psychologically as the safest and most reliable foundation of all" (*Kirkpatrick, 2005: 70*). From this point of view, God can be considered as quite an adequate attachment figure that meets all the necessary defining criteria, that is, encouraging closeness in personal relationships, being a safe haven in times of danger and acting as a secure base in the life of a believer.

There are also numerous studies that suggest that people's relationships with God are very closely related not only to their concept of God, but also to their personal attachment style, which means that people tend to project their attachment style in relationships with other significant people into their relationship with God. In particular, it was found that individual differences in the Christians' images of God are closely related to the images of their parents

(see, Hyde, 1990). Moreover, in his study, Kirkpatrick (2005: 105) states that people who classified themselves as having a secure attachment style in relationships with others were much more likely to consider God as more loving, less controlling, and less distant or inaccessible than those who had any of the insecure attachment styles. Having this framework in mind, McDonald and Beck (2004) have designed the Attachment to God Inventory (AGI) to obtain information regarding Christians' close relationship to God that would allow examination of the believer's subjective reflections regarding their own attitudes toward God and their image of God, rather than the doctrinal beliefs of Christians or their external religiosity (i.e. participation in church services, the number of hours spent in prayer or scripture reading, etc.), as. As McDonald and Beck rightly point out, believers' views of what they "do" believe about God may not necessarily be identical to what they "should" believe, i.e. the theological doctrines that are upheld by their local or even all Christian communities (Zahl & Gibson, 2012).

Therefore, based on the abovementioned systematic studies (Bradshaw, Ellison & Flannelly, 2008; Kirkpatrick, Shillito & Kellas, 1999), we assume that such internal aspects of religious life as close relationships with God that reflect a concept of a loving, caring and accessible God, are best described in terms of attachment theory, and that secure attachment to God can serve as a deterrent against the spiritual type of loneliness. Thus, in our study the spiritual loneliness is perceived as a believer's lack of close secure attachment to God and the image of God as rather cold, unpredictable, cruel, unfair and unapproachable.

There's another cohort of studies that supplement the consideration of loneliness with a fourth type of loneliness, namely existential loneliness which has been defined as a primary and inevitable condition of existence (Mijuskovic, 1977; Moustakas, 1961) for which no remedy in relationships with people can be found. The criterion that distinguishes existential loneliness is a lack of meaning of life; it is associated with a sense of desolation and helplessness. Mayers (2002: 1185) postulates that productivity and understanding of one's role in life can somewhat neutralize the sense of existential loneliness and despair. The Existential Loneliness Questionnaire (ELQ), a 22-item measure, was created by Mayers and Swartberg (2002) to measure existential type of loneliness. Though this measure showed good internal consistency, due to a small statistical sample on which it was tested, it couldn't be used as a reliable research tool per se.

There is also cultural loneliness, which reflects a sense of isolation from the contemporary cultural environment, a certain rejection of surrounding social norms and values. Although there have been some theoretical studies done in the field of cultural loneliness (Cacioppo et al., 2016; Lykes & Kemmelmeier, 2014; Hsu et al., 1987), as far as we know there is still no reliable and comprehensive instrument when it comes to its measurement. Therefore, in spite of strong theoretical grounds for distinguishing between different types of loneliness, there was still a need for such a measurement tool which in a concise - and at the same time sufficiently accurate form would make it possible to measure all of the five types of loneliness that Christians may face. In view of the limitations of other available instruments, we aimed at developing an instrument that would more accurately capture the phenomena of loneliness experienced by Christians.

When exploring the different types of loneliness that

people experience in different relationships, we must also take into account some other related constructs to place loneliness in a slightly broader perspective. According to several researchers, such a construct as the "attitude to solitude" has also been chosen as a key aspect in measuring loneliness, as people's attitude to being alone has proven to be linked to loneliness. In particular, Goossens & Beyers (2002) have shown that a person's negative attitude to being alone (aversion to solitude) predicts loneliness during the time in solitude. There are a number of measurement tools developed to assess the link between loneliness and solitude. Two of the most known are "Loneliness and Aloneness Scale for Children and Adolescents" (LACA) initially developed by Markoen and colleagues (Marcoen, Goossens, Caes, 1987) to measure loneliness and solitude in relation to children and adolescents, and second, a 14-item "Motivation for Solitude Scale - Short" by Thomas & Azmitia, whose study supports the idea that solitude for extrinsic, not self-determined reasons, is associated with loneliness, social anxiety, and depressive symptomatology; in contrast, solitude chosen for intrinsic, self-determined reasons, is positively correlated with well-being (Thomas & Azmitia, 2019).

Method

Given the wide range of tasks facing this study, as well as the lack of research of the connection between loneliness and spirituality in a Ukrainian context, the study of the loneliness of Christians in modern Ukraine was conducted using a specially developed "Loneliness Inventory for Christians" (LIFC), which consisted of the author's scale for measuring cultural loneliness and short versions of the abovementioned loneliness measurements, developed by other foreign scholars, or only their separate scales. The following criteria were used to select statements from all of these techniques: factor structure (dominant factor loadings $\geq .40$, intercorrelation $\leq .25$), internal consistency (Alpha coefficient $> .80$), and minimal common difference between subscales ($r2 < .10$).

In particular, to determine the general level of loneliness we used a three-component version of the most common UCLA Loneliness Scale, which was standardized by the scholars of the University of Chicago and demonstrated satisfactory reliability and discriminant validity (Hughes, Waite, Hawkey, Cacioppo, 2004). In the Loneliness Inventory for Christians (LIFC), the UCLA-3 scale was presented with the following statements: "How often do you feel you lack communication?" (item 2.34); "How often do you feel left behind?" (item 2.35), and "How often do you feel separated from other people?" (item 2.36). Respondents could agree or disagree with these statements using the following options: "almost never"; "sometimes" and "often". However, since the UCLA-3 scale does not determine the timeframe for respondents, it is therefore unclear whether this tool measures loneliness as a temporary indicator or as a chronic condition. Therefore it was necessary to use some alternative tools aimed at measuring social as well as other types of loneliness in conjunction with the UCLA-3.

Thus, other multidimensional tools like some items from the subscales of the "Social and Emotional Loneliness Scale for Adults" (SELSA) (DiTommaso & Spinner, 1993, 1997), were used to measure various aspects of emotional and social loneliness. Based on the results of the analysis of the main components in their questionnaire, they identified romantic relationships as a component of

emotional loneliness, and relationships with family members and friends as components of social loneliness. The following items of LIFC were drawn from SELSA's social loneliness scale: "I'm confident that my friends will come to help me when I need it" (item 2.2), "There is no one in my family I can depend upon for support and encouragement" (item 2.13), and "I feel close to my family" (item 2.5). SELSA's emotional loneliness scale is represented in LIFC, for example, by the following statements: "I have a romantic or marital partner who gives me the support and encouragement I need", item 2.12) and "I have a romantic partner with whom I share my most intimate thoughts and feelings", item 2.3). Given that emotional loneliness in our study was considered not only as a lack of intimacy in romantic relationships, but also as a lack of close emotional connection with another significant person (such as friendly dyadic mutual relations), it was decided to adapt the phrase "romantic" and "marital" partner, that are used in SELSA, replacing them with phrases "close relationships" or "loved ones" as more relevant equivalents for our study, with which most people, even those not married or not involved in a romantic relationship, can identify.

In addition, the Differential Loneliness Scale (DLS), developed by Schmidt and Sermat (1983), was partially used in the LIFC to measure social and emotional loneliness. Three out of four of its subscales, namely romantic or intimate loneliness (item 2.26), loneliness in friendship relationships (item 2.7) and loneliness in a larger group or community (item 2.10) were partially used in the LIFC. The DLS' family loneliness subscale was not used in the LIFC.

To determine existential loneliness which is associated with the meaninglessness of life, the following statements are used in LIFC: 2.21, 2.27, and 2.33. Moreover, existential loneliness is also associated with regret how one lived his or her life. This aspect is reflected in item 2.25 (reverse scoring), 2.18, and 2.29 of the LIFC.

Part of the Loneliness Inventory for Christians (LIFC) is the scale of "cultural loneliness". The scale of "cultural loneliness" was specially developed by the author and it includes the following statements: "I feel rejection and aversion toward society I live in" (2.14); "There are few people in my life who share my principles, ideals and values" (2.17); "My inner circle of people supports me in my vocation and calling" (2.19, reverse scoring); "Sometimes I get the feeling that I belong to another country or culture" (2.20); "It seems to me that people sometimes do not consider me to be quite adequate" (2.22); "I feel like a 'black sheep' - someone who is very different from others" (2.24); and "I feel like no one really understands my feelings and reasoning" (2.28).

To obtain information about the probable correlation between loneliness of Christians and their attitude to solitude, two subscales of the LACA questionnaire were used in LIFC, namely: aversion to aloneness (negative attitude) and affinity to aloneness (positive attitude). Sample items for these scales were as follows: "When I am alone, I feel considerable discomfort", item 2.4; "The likelihood that I can be alone for the rest of my life scares me", item 2.31 and 2.32; "When I am by myself, thoughts of loneliness make me sad" (Aversion to aloneness subscale). And the "affinity to aloneness" subscale was reflected in the following statements: "It's better to be alone in order to be able to understand or feel some important things", item 2.9; "I like to be alone", item 2.16, and "Solitude

helps me understand myself better", item 2.30. And Item 2.23 of LIFC "I look for opportunities to be alone in order to do what I'm really interested in" was borrowed from the Motivation for Solitude Scale - Short Form (MSS-SF) (Thomas & Azmitia, 2019).

The Loneliness Inventory for Christians (LIFC) was designed to measure not only the level but also the type of loneliness, namely: emotional, social, cultural, existential and spiritual, as well as Christians' attitude to being alone. We assume that these five aspects of loneliness are relatively independent, distinct constructs though they can be closely linked to one another. And secondly, the LIFC is also focused on revealing a possible connection between loneliness of Christians and their style of attachment to other significant people and God. The lack of a secure attachment of Christians to God, together with the negative image of God, is conceptualized as a manifestation of spiritual loneliness.

Therefore, in view of the aforementioned ideas regarding the application of the theory of attachment to religiosity, in our study we attempted to test, first, if there is any connection between the interpersonal styles of attachment of believers in Ukraine with any type of loneliness. And second, we aim to determine whether there is any correlation between the interpersonal attachment style of Christians to their perception of God, i.e. to their image of God as loving, close, or vice versa, distant, inaccessible, and indifferent; and whether this image of God is in any way related to such a factor as believers' religious affiliation. In view of the latter idea, based on previous studies, it is hypothesized that there is a certain difference in Christians' subjective perception of God, depending on their denominational affiliation¹.

Therefore, close relationships with God were assessed using the Attachment to God Inventory (AGI). Three items measured avoidance in attachment to God (items 4.2, 4.4 (reverse scoring) and 4.5), and anxiety was assessed by items 4.6 (reverse scoring), 4.7, and 4.9 (reverse scoring). The other three items of the spiritual loneliness scale were chosen to reflect the personal and relational characteristics of God and aimed at assessing the image of God perceived by Christians as a loving, caring, just, willing to help when it's needed or, conversely, indifferent, distant, impersonal, cruel and punitive (items 4.1 (reverse scoring); 4.3, and 4.8).

Furthermore, the believer's participation in "church ministry according to their gifts" was included to LIFC as control variable, as earlier studies had previously found this to correlate with both loneliness (Chornobai, 2018)² and attachment to God (Kirkpatrick, 2005: 106). In addition to these control variables, we investigated whether there would be any connection between Christians' beliefs about God and their attachment to God traced to the respondents' attachment style to other significant people, given that past studies have found that attachment to other significant

¹ See for example the results of one of L. Kirkpatrick's research at the University of South Carolina: "In a sample of a newspaper poll involving more than 400 adults, participants who classified themselves as having a strong attachment to the Hazan-Shaver scale, more often than not, identified themselves as evangelical Christians, a Christian denomination that places particular emphasis on personal relationships with God and Jesus". Lee Kirkpatrick, Attachment, Evolution and the Psychology of Religion (NY: The Guilford Press, 2005), 106.

² Item 1.6 in LIFC: "I have a hobby or favorite ministry that I enjoy doing in my church".

people (such as parents) and God are interconnected (Beck & McDonald, 2004: 100).

Procedure

The LIFC was standardized and validated on a total sample of 302 people, containing the full forms or parts of the following methods: Three-Item UCLA Loneliness Scale (UCLA-3), Differential Loneliness Scale (DLS), Motivation for Solitude Scale - Short Form (MSS-SF), Social and Emotional Loneliness Scale (SELSA), Existential Loneliness Questionnaire (ELQ), Relationships Questionnaire (RQ), Attachment to God Inventory (AGI). As all of the above-mentioned methods, except for the cultural loneliness subscale developed by the author, were originally developed in English, their translation into the respondents' mother tongue (Ukrainian) was conducted by a three-step process. In the first stage of the translation process, two professional translators made their own independent translations of the scales. Second, they agreed on a joint version after discussion. Finally, this version was double-checked by a third competent person who has a high level of knowledge of both the target language (i.e. Ukrainian) and the methods mentioned above. This gives us reason to believe that the concepts and phrases used in the LIFC are of similar relevance in the cultural context and allow for comparison with the original English tests.

The empirical data were obtained via anonymous online surveys using the Google Forms application during autumn 2019, in which respondents agreed to participate voluntarily. Their anonymity was guaranteed. The respondents could agree or disagree with each of the proposed statements of LIFC on a 4-point scale ranging from 0 (strongly disagree) to 3 (strongly agree).

The sample

The sample distribution by socio-demographic indicators was as follows. According to the country of residence, 309 respondents (93%) that participated in the survey were residents of Ukraine. However, as this survey was focused only on the respondents from Ukraine, the answers of respondents from other countries (7%, N = 23, of all sample) were not included.

Respondents' religious affiliation was as follows: 15.1% belong to Orthodox Church, 2.1% were Catholics and 80.7% were Protestants. Respondents belonging to: Islam, Judaism, Eastern-Asian beliefs (Buddhism, Vedic, Hinduism, etc.), original polytheistic beliefs (Shintoism, paganism) - were not represented (N = 0%). The total number of respondents who do not consider themselves Christian is 2.1%. A total number of 332 individuals participated in the study, however, given that according to the research objectives the LIFC was developed only or predominantly for Christians, the answers of persons who do not belong to any religion (0.6%, N = 2) or do not believe in God, were excluded from the calculations. Similarly, answers of those who belong to other beliefs that do not emphasize the personal and relational God, with whom one can have personal relationships, were excluded (1.5%, N = 5). We believe that LIFC as a tool can be of little use in relation to such respondents, as one of the objectives of the study was to measure the quality of one's personal relationship with God and the style of attachment to Him as one aspect of spiritual loneliness. Consequently, after these exceptions, 302 participants remained, exceeding

the minimum of 300 people, required to evaluate the reliability of the instrument for this type of study (MacCallum *et al.*, 1999).

By age our sample consisted of three groups: up to 29 years - 24.1%; 30-49 years - 63.5%; 50 years and older - 12.4%. By gender, respondents were not evenly distributed: men - 35.2%, women - 64.8%. Regarding their family status, the respondents of the sample were divided into four groups: 1) not married - 30.1%; 2) married - 60.6%; 3) involved in informal stable relationships - 2.7%; 4) divorced - 6.6% of the sample.

Results and discussion

The adapted final version of the LIFC includes thirty-three statements. Together with the adaptation of the LIFC, its principle factor analysis (PFA) was conducted. PFA was performed using Varimax orthogonal rotation with Kaiser Normalization. On the basis of the scree test (Cattell, 1978) and percentage of variance accounted for, the number of factors selected for rotation to the Varimax criterion was set at five. Together these factors or components explained a total of 58.2 % of the variance. This means that the PFA was quite successful. Items and item loadings are presented in Table 1. Color-marked are significant loadings of the statements of this questionnaire on the factors identified.

The factors identified are separate components of the phenomenon of Christian loneliness, revealing different aspects of loneliness, and empirically these factors fully correspond to the types of loneliness highlighted in this research. In particular, factor 1 corresponds to the social loneliness scale. This factor characterizes a lack of meaningful information exchange or communication at the level of understanding. The key item is 2.2: "I'm confident that my friends will come to help me when I need it" - its loading on the factor is 0.75.

Factor 2 corresponds to the scale of cultural loneliness. This factor characterizes the feeling of alienation of a person from those cultural and social values that surround him or her, a deep dissatisfaction with the society in which the person lives. The key item is 2.24: "I feel like a 'black sheep' - someone who is very different from others" - its loading on the factor is 0.77. Such cultural loneliness follows when, despite of being among other people, a person's communication is complicated because of the difference of cultural values and so on.

Factor 3 corresponds to the scale of existential loneliness. This factor characterizes the feeling of lack of purpose and meaning in life, as well as lack of responsibility for one's life. The key item is 2.33: "My life is filled with deep meaning" - its loading on the factor is 0.73.

Factor 4 corresponds to the scale of emotional loneliness. This factor characterizes the subjective reaction of a person to the lack of close emotional attachment, inability to find emotional support and understanding from other significant people. The key item is 2.8: "I do not feel true love and support from my partner in the relationship" - its loading on the factor is 0.77.

Factor 5 corresponds to the spiritual loneliness scale. This factor characterizes the feeling of a certain gap in the relationship between a believer and God, the lack of a close attachment to God based on absence of the image of a reliable, loving and caring God in the conscience of a Christian. The key item is 4.6: "I think God loves me unconditionally and helps me in life" - its loading on the factor is 0.78.

Table 1. Items and Varimax rotated factor loadings for the LIFC

Item	Factor *	1	2	3	4	5
2.1. I have close people with whom I can share my innermost thoughts and feelings. **		,544	,073	,270	,248	,134
2.2. I'm confident that my friends will come to help me when I need it. **		,747	,015	,002	,069	,225
2.3. I have an unmet need for a close relationship and emotional warmth.		,335	,047	,062	,680	,006
2.5. I feel close to my family. **		,269	,193	,340	,273	-,003
2.6. I lack a close, trusting relationship based on mutual love and affection.		,080	,128	,105	,738	,007
2.7. I have friends with whom I have regular and mutually pleasant fellowship. **		,719	,116	,036	,043	-,032
2.8. I do not feel true love and support from my partner in the relationship.		,066	,058	,038	,769	,080
2.10. It seems that there is virtually no one in my church who would genuinely care about me		,420	,083	,153	,150	,086
2.11. I feel I really do not have much in common with the larger community in which I live.		,388	,415	,199	,225	,104
2.12. I have loved ones who are always ready to support and encourage me when I need it. **		,606	,172	,203	,295	,086
2.13. There is no one in my family I can depend upon for support and encouragement.		,459	,159	,302	,195	-,055
2.14. Society makes me feel rejection and aversion toward it.		,272	,579	,221	-,067	-,040
2.15. There are few people in my life who share my principles, ideals and values.		,700	,293	,097	,149	-,019
2.17. There are few people in my life who share my principles, ideals and values.		,370	,507	,093	,174	,103
2.18. Nothing in life really depends on me.		,178	,281	,139	,044	,009
2.19. My inner circle of people supports me in my vocation and calling. **		,431	,321	,335	,295	,097
2.20. Sometimes I get the feeling that I belong to another country or culture.		-,016	,715	,040	,115	,130
2.21. Life seems pretty boring and meaningless to me.		,166	,480	,529	,125	-,019
2.22. It seems to me that people sometimes do not consider me to be quite adequate.		,132	,665	,187	,070	,116
2.24. I feel like a "black sheep" - someone who is very different from others.		,174	,774	,030	,131	,071
2.25. I am quite happy with how I lived my life. **		,341	,085	,579	,260	,073
2.26. At the moment, I am involved in the relationships that bring mutual emotional satisfaction. **		,269	,127	,304	,623	,058
2.27. I see a purpose in my life. **		,056	,173	,715	,188	,227
2.28. I feel like no one really understands my feelings and reasoning.		,259	,258	,317	,511	,018
2.29. No matter how hard you try, nothing can be changed in life.		,190	,195	,253	,141	,159
2.33. My life is filled with deep meaning. **		,253	,156	,726	,154	,170
4.1. I am sure that God is ready to hear me every time I turn to Him. **		,042	,021	,329	-,033	,578
4.2. I just don't feel a deep need to be close to God.		,028	,125	,073	-,017	,151
4.3. It seems to me that God is not always just.		,113	-,028	,122	,053	,290
4.4. My relationships with God are very close and emotional. **		,010	,043	,495	-,023	,392
4.5. I prefer not to depend too much on God.		-,064	,145	-,024	,134	,591
4.6. I think God loves me unconditionally and helps me in life. **		,128	,081	,073	,035	,784
4.7. I worry a lot if God is pleased with me.		,023	-,036	-,012	,006	-,068
4.8. God seems indifferent and distant to me.		,074	,197	,226	,144	,458
4.9. I trust the guidance of God in my life, though I do not always understand Him. **		,136	,125	,093	,038	,759

Note: Factor selection method: principal component method. Varimax rotation method with Kaiser normalization. Items scored on a scale from 1 (strongly disagree) to 4 (strongly agree). Items on the spiritual loneliness subscale were presented on a separate page. * The Aversion to Solitude scale was not included in this analysis. ** Reverse scoring on these items. Color-marked are the statements, which showed statistically significant loadings on the relevant factor. Together these components accounted for a total of 58% of the variance.

Intercorrelations and internal consistency of the sub-scales

The methodology for assessing and analyzing the reliability of the LIFC included assessing the internal consistency (homogeneity) of the scale items, using the Alpha Cronbach coefficient as the main indicator. Both intercorrelation between each scale items and multiple correlations between one single item and all other items were considered. The contribution of each item to the scale value, its variance and reliability were analyzed.

The SPSS software package was used to perform the reliability assessment calculations. All 302 participants have answered to all 33 test questions, and were included

for analysis. Internal consistency (Cronbach's α) and intercorrelations for all loneliness subscales used in the LIFC are presented in Table 2 and Table 3.

In our case, for all five scales measuring different types of loneliness, the Cronbach Alpha coefficient was within the limits of satisfactory consistency ($\alpha = 0.80 - 0.78$), see for example Table 2 "Internal consistency of the cultural loneliness scale".

Table 3 reflects intercorrelation and internal consistency of the LIFC scales. The range of the intercorrelation coefficients between the items of the scales does not exceed 0.4 (the mean is 0.34). Although the question of how much the items of the questionnaire scales must be

Table 2. Internal consistency of the cultural loneliness scale

Item	The cultural loneliness scale	Mean	SD*	Cronbach's α
2.14.	Society makes me feel rejection and aversion toward it.	6,01	3,65	0,77
2.17.	There are few people in my life who share my principles, ideals and values.	5,78	3,55	0,75
2.19.	My inner circle of people supports me in my vocation and calling.	5,86	3,67	0,77
2.20.	Sometimes I get the feeling that I belong to another country or culture.	5,65	3,58	0,79
2.22.	It seems to me that people sometimes do not consider me to be quite adequate.	5,93	3,62	0,77
2.24.	I feel like a "black sheep" - someone who is very different from others.	5,68	3,52	0,75
2.28.	I feel like no one really understands my feelings and reasoning.	5,67	3,62	0,78

* SD - standard deviation.

mutually correlated is still discursive, we think, however, that the coefficient of intercorrelation should be quite low, since the high correlations between the individual items would only suggest that such items are in fact interchangeable and may be replaced by one of them. When constructing a comprehensive tool to measure such multi-

dimensional socio-psychological and spiritual phenomenon as loneliness, one must seek not mutual correlations of individual items (each of which should measure a specific aspect of a complex phenomenon), but their overall internal consistency. Cronbach's α is commonly used for such evaluations.

Table 3. Intercorrelation and internal consistency of LIFC scales

	1	2	3	4	5	Cronbach's α	Mean	SD	Intercorrelation of items
EMOTIONAL LONELINESS	1,0000	,6226*	,5428*	,5242*	,2760**	0,79	6,63	4,28	0,4
SOCIAL LONELINESS		1,0000	,6512*	,6435*	,2145**	0,79	6,02	4,05	0,35
CULTURAL LONELINESS			1,0000	,6620*	,1713	0,8	6,76	4,14	0,37
EXISTENTIAL LONELINESS				1,0000	,3031**	0,78	4,59	3,39	0,38
AVERSION TO ALONENESS					1,0000	0,68	7,3	3,69	0,24
SPIRITUAL LONELINESS						0,76	5,05	3,67	0,27

* $p \leq ,00$; ** $p \leq ,000$

Therefore, Table 3 displays the internal consistency and intercorrelations of the subscales of LIFC showing that all five loneliness subscales have quite good internal consistency, ranging from 0.76 to 0.8. The mean corrected item-total correlations for the emotional, social, cultural, existential and spiritual subscales are 0.79, 0.79, 0.8, 0.78 and 0.76 ($p < 0.001$), respectively.

All of the scale intercorrelations are high and significant beyond the $p < 0.01$ level. In particular, the highest correlation is observed between the scales of existential and cultural loneliness (within 0.662) and between the scales of cultural and social loneliness (within 0.651). Such a result, in our opinion, may preclude the individual usefulness of the subscales as separate components of the more general construct of "loneliness".

Secondly, we can notice that the links found between the scales of aversion to aloneness - are significantly weaker (correlation coefficients ranging from 0.1 to 0.3), although they are also statistically significant and not accidental. This may mean that the aversion to aloneness is a relatively independent construct, which, however, can also be considered as quite an important dimension for the analysis of loneliness, and which should also be taken into account when investigating the phenomenon of loneliness.

Concurrent and discriminant validity

In order to examine the concurrent and discriminant validity of the LIFC scales, their interrelationships with the revised UCLA-3 Loneliness Scale (Hughes et al., 2004) items measuring overall loneliness were assessed. The results are presented in Table 4 "The results of the

correlation analysis between the scales of the LIFC and the UCLA-3 Loneliness Scale". All five LIFC scales are significantly correlated to the UCLA Loneliness Scale: the social subscale shows the largest correlation ($r = 0.67$) and the spiritual and aversion to aloneness subscales have smaller correlations ($r = 0.35$ and 0.25 , respectively). All correlations had two-tailed probabilities < 0.01 . The results of the correlation analysis between the author's LIFC scales and the unidimensional UCLA-3 loneliness scale suggest that, as expected, the largest correlation is observed between UCLA-3 and the LIFC social loneliness scale, which suggests that they are mainly aimed at measuring the same aspect of the phenomenon of loneliness: social.

Table 4. The results of the correlation analysis between the scales of the LIFC and the UCLA-3 Loneliness Scale

	Loneliness UCLA-3	
	Pearson coefficient (χ^2)	p
EMOTIONAL LONELINESS	.6100	.00
SOCIAL LONELINESS	.6778*	.00
CULTURAL LONELINESS	.6465	.00
EXISTENTIAL LONELINESS	.6220	.00
SPIRITUAL LONELINESS	.3580	.000
AVERSION TO ALONENESS	.2544**	.000

* The highest correlation;

** Correlation is not dense, but not accidental, two-tailed.

Analyses of the relationship of the LIFC scales to the respondents' attachment to God styles and their current involvement or non-involvement in a church ministry according to their gifts provided further concurrent and

discriminant validity for the five loneliness scales. The results of the correlation analysis between the LIFC scales and the attachment to God style scales and spiritual loneliness are displayed in the Table 5.

Table 5. The results of the correlation analysis between the LIFC scales and the attachment to God style scales and spiritual loneliness

	Pearson coefficient (χ^2)			
	Avoidance in relationships with God	Anxiety in relationships with God	Negative image of God	Overall spiritual loneliness
EMOTIONAL LONELINESS	.1959 p=.001	.2020 p=.000	.2640 p=.000	.2734 p=.000
SOCIAL LONELINESS	.2307 p=.000	.2514 p=.000	.3167 p=.000	.3295 p=.000
CULTURAL LONELINESS	.2655 p=.000	.2290 p=.000	.3506** p=.000	.3510** p=.000
EXISTENTIAL LONELINESS	.3393 p=.000	.2945 p=.000	.4903** p=0.00	.4672** p=.000
AVERSION TO ALONENESS	.0724* p=.212	.1740 p=.003	.1308 p=.024	.1519 p=.009

* No reliable correlation. Between all the other scales a significant correlation was found;

** Bold indicates the most statistically significant correlation; p is a level of statistical significance.

When analyzing the data of Table 5, we can see, firstly, that there is a statistically significant correlation ($p = 0.00-0.000$) between such components of spiritual loneliness as the "negative image of God" and "insecure attachment to God" and scales of cultural and especially existential loneliness (ranging from 0.3506 to 0.3510 and from 0.4903 to 0.4672, respectively). And secondly, avoidance to God has much weaker correlations to all type of loneliness and no significant correlation with the aversion to solitude scale ($r = 0.07$, $p = 0.212$). Therefore a conclusion can be made that there are real connections of emotional, social, cultural and existential loneliness with spiritual loneliness, which is primarily manifested (or determined) in the negative image of God and the insecure attachment to Him. However these types of loneliness are different constructs that together comprise a multifaceted phenomenon of loneliness.

As expected, the attachment to God dimensions (Avoidance & Anxiety) correlated with several other religion-related measures (Wade & Kirkpatrick, 2002: 6). In particular, the results of the correlation analysis also indicate that there is a densely statistically significant relationship ($p = 0.006-0.001$; $F = 5,209-7,538$) between the factor of believers' involvement in ministry in their church and such

dependent variable, as loneliness measured by the UCLA-3 scale. As expected, there is a strong inverse relationship between the overall level of loneliness and belonging to a particular church, given that believers are involved in church service according to their individual gifts and preferences. That is, it can be concluded that the fact that believers are not involved in the ministry they enjoy in their church is one of the factors that determines the believers' loneliness, which is probably related to a lack of communication with other like-minded people.

In this study we decided to conduct a one-way analysis of variance to measure how Christians' attachment styles are related to particular types of loneliness. The following significant differences were revealed in terms of respondents' attachment style in their interpersonal relationships with other people, which are displayed in Table 6. In particular, there is a significant negative correlation between a secure attachment style and all types of loneliness without exception, while anxious and disorganized attachment styles show a clear positive correlation with all kinds of loneliness. That is, we can conclude that Christians, who have a secure interpersonal attachment style, are less inclined to experience loneliness in general.

Table 6. Differences between Interpersonal Attachment Styles and Loneliness Types

	Interpersonal Attachment style								F-Fisher criteria **	p
	Secure		Disorganized		Anxious		Avoidant			
	Mean*	Mean±SE	Mean	Mean±SE	Mean	Mean±SE	Mean	Mean±SE		
EMOTIONAL LONELINESS	4,67	0,33	7,79	0,61	8,52	0,58	6,59	0,51	14,0267	0,00000
SOCIAL LONELINESS	3,80	0,35	7,49	0,51	7,80	0,59	6,15	0,46	19,4537	0,00000
CULTURAL LONELINESS	4,78	0,4	8,40	0,53	8,56	0,55	6,49	0,46	16,924	0,00000
EXISTENTIAL LONELINESS	2,85	0,26	6,09	0,43	5,91	0,54	4,50	0,30	18,1221	0,00000
SPIRITUAL LONELINESS	4,20	0,26	5,12	0,48	6,00	0,53	4,99	0,40	3,3759	0,0188***
LONELINESS (UCLA-3)	1,21	0,17	3,25	0,24	3,23	0,26	2,28	0,20	26,852	0,00000

* Mean ± SE is the average standard error; ** F freedom stage = 3; N = 295. *** Differences exist at the significance level ($p < 0.05$). All other differences are clearly significant, and the probability of statistical error is $p < 0.0001$.

Finally, according to the result of the LIFC, as expected, attachment styles that Christians have toward other significant people have also been linked to both the factor of spiritual loneliness and the image of God in the conscience of Christians. In particular, a strong negative correlation was found between the image of God as loving, just and accessible and the anxious and disorganized attachments to God. That leads us to the conclusion, that Ukrainian Christians who have an anxious or disorganized attachment style in relationships with significant other people also exhibit the highest level of both the perceived negative image of God and the level of spiritual loneliness.

It is important to note that this study utilized a highly protestant and orthodox Christian sample consisting of believers from Ukraine. Therefore, findings may not be fully generalized to Christians of other countries and other Christian traditions (Catholics, for example). However, it can be stated that the LIFC as a unique tool of measurement 5 types of loneliness is considered to be reliable and that all its scales except the Solitude Scale ($\alpha = 0.68$) are sufficiently homogeneous and internally consistent. A number of previous studies have been conducted using the SELSA, DLS, LACA, UCLA-3 and AGI scales, which do not tap into either aspect of cultural and spiritual loneliness. At the very least, the current studies suggest that potentially important facets of loneliness are being overlooked. Clearly, further validation of the LIFC is desirable. In addition to contributing further evidence of the scales' validity, such research could lead to a better understanding of the multidimensional nature of loneliness.

As the current study is not longitudinal, it only provides a facet of each participant's loneliness experience. Future studies are clearly needed to elaborate and improve on the methods and measurements used in order to produce a more complete picture of the role that religion plays in relation to different types of loneliness.

REFERENCES

- Ainsworth, Mary D. & Salter, Mary C. & Blehar, Everett Waters, and Sally, Wall (1978). *Patterns of attachment: Assessed in the Strange Situation and at home*. Hillsdale, NJ: Erlbaum.
- Bartholomew, Kim & Leonard, M. Horowitz (1991). Attachment Styles among Young Adults: A Test of a Four-Category Model. *Journal of Personality and Social Psychology*, 61(1991): 226-244.
- Beck, Richard & Angie, McDonald. (2004). Attachment to God: The Attachment to God Inventory, Tests of Working Model Correspondence, and an Exploration of Faith Group Differences. *Journal of Psychology and Theology*, Vol. 32, 2: 92-103.
- Bowlby, John (1973). *Attachment and loss: Volume 2: Separation*. New York: Basic Books.
- Bowlby, John (1980). *Attachment and loss: Volume 3: Loss*. New York: Basic Books.
- Bowlby, John (1982). *Attachment and loss. Volume I: Attachment*. Second edition. Tavistock Institute of Human Relations: Basic Books.
- Bradshaw, Matt, Cregg, G. Ellison, & Kevin, J. Flannelly (2008). Prayer, God Imagery, and Symptoms of Psychopathology. *Journal for the Scientific Study of Religion*, 47: 644-659.
- Cattell, Raymond B. (1978). *The scientific use of factor analysis in behavioral and life sciences*. New York: Plenum Press.
- Chornobai, Valeriia (2018). Stratehiyi podolannya samotnosti khrystyian: sotsialno-relihiynny aspekt. *Praktychna Filosofiia*, 2, (68): 193-199 (In Ukrainian).
- Clinton, Timothy & Sibs, Gary (2002). *Attachments: why you love, feel and act the way you do*. Brentwood: Integrity publishers.
- Cramer, Kenneth M. & Barry, Joanne E. (1999). Conceptualizations and Measures of Loneliness: a Comparison of Subscales. *Personality and Individual Differences*, 27: 491-502.
- DiTommaso, Enrico & Spinner, Barry (1993). The development and initial validation of the Social and Emotional Loneliness Scale for Adults "SELSA". *Personality and Individual Differences*, 14: 127-134.
- Goossens, Luc & Wim, Beyers (2002). Comparing Measures of Childhood Loneliness: Internal Consistency and Confirmatory Factor Analysis. *Journal of Clinical Child and Adolescent Psychology*, 31, no. 2: 252-262.
- Hrytsenko, Viktoriia A. (2011). Vplyv simi na formuvannia samotnosti starshykh pidlitkiv. *Humanitarnyi visnyk DVNZ "Pereiaslav-Khmelnytskyi derzhavnyi pedahohichnyi universytet imeni Hryhoriia Skovorody"*: zb. nauk. pr., 23: 312-316. Pereiaslav-Khmelnytskyi: DVNZ (In Ukrainian).
- Hsu, Lorie R., Jo Hailey, B., Lillian Range, M. (January, 1987). Cultural and emotional components of loneliness and depression. *The Journal of psychology*, 121, 1: 61-70.
- Hughes, Elizabeth M. & Waite, Linda J. & Hawkley, Louise C. & Cacioppo, John T. (2004). A Short Scale for Measuring Loneliness in Large Surveys: Results from Two Population-Based Studies. *Res Aging*, 26, 6: 655-672.
- Hyde, Kenneth E. (1990). *Religion in Childhood and Adolescence: A Comprehensive Review of the Research*. Birmingham, AL: Religious Education Press.
- Ihnatenko, Iryna V. (2012). *Filosofsko-antropologichnyi vymir fenomena samotnosti: vid modernu do postmodernu*. Dys. Kand. Fil. Nauk, Natsionalnyi aviatsiynnyi universytet, Kyiv (In Ukrainian).
- Ishchuk, Natalia (2015). Obrysy Khrystyianskoho Rozuminnia Fenomena Spilkuvannia. *Skhid*, 6 (138): 16-20. DOI: [https://doi.org/10.21847/1728-9343.2015.6\(138\).54637](https://doi.org/10.21847/1728-9343.2015.6(138).54637) (In Ukrainian).
- Karalash, Natalia H. (1999). *Zhyttievyyi Svit Liudyny ta Perezhyvannia Neiu Stanu Samotnosti Yak Predmet Filosofskoho Analizu*. Dys. Kand. Fil. Nauk, Chernivtsi (In Ukrainian).
- Kirkpatrick, Lee A. & Shillito, Daniel J. & Kellas, Susan L. (1999). Loneliness, social support, and perceived relationships with God. *Journal of Social and Personal Relationships*, 16: 513-522.
- Kirkpatrick, Lee A. (2005). *Attachment, Evolution and the psychology of religion*. NY: The Guilford Press.
- Lykes, Valerie A., Kemmelmeier, Markus (2014). What Predicts Loneliness? Cultural Difference between Individualistic and Collectivistic Societies in Europe. *Journal of Cross-Cultural Psychology*, 45, 3 (2014): 468-490. DOI: <https://doi.org/10.1177/0022022113509881>
- MacCallum, Robert C. & Keith, Widaman, Shaobo, Zhang, and Sehee, Hong (1999). Sample size in factor analysis. *Psychological Methods*, 4: 84-99.
- Marangoni, Carol & Ickes, William (1989). Loneliness: A Theoretical Review with Implications for Measurement. *Journal of Social and Personal Relationships*, 6: 93-128.
- Marcoen, Alfons, Luc, Goossens, & Paul, Caes (1987). Loneliness in pre through late adolescence: Exploring the contributions of a multidimensional approach. *Journal of Youth and Adolescence*, 16: 561-577.
- Mayers, Aviva M. (September, 2002). The Existential Loneliness Questionnaire: Background, Development, and Preliminary Findings. *Journal of Clinical Psychology*, Vol. 58 (9): 1183-1193.
- Mijuskovic, Ben (1977). Loneliness: An interdisciplinary approach. *Psychiatry*, 40: 113-131.
- Mikulincer, Mario & Shaver, Phillip R. (2014). An Attachment Perspective on Loneliness, in *The Handbook of Solitude: Psychological Perspectives on Social Isolation, Social Withdrawal, and Being Alone*. Hoboken, New Jersey: John Wiley & Sons, 34-50.
- Moustakas, Clark E. (1961). *Loneliness*. Englewood Cliffs, NJ: Prentice-Hall.

- Raymond, F. Paloutzian, Craig, W. Ellison (1982). Loneliness, spiritual well-being and the quality of life, in Peplau, L.A., Perlman, D. (ed.). *Loneliness: A sourcebook of current theory, research and therapy*. New York: Wiley, 224-237.
- Rokach, Ami & Bacanlı, Hasan (2001). Perceived causes of loneliness: A cross-cultural comparison. *Social Behavior and Personality*. 29, 2: 169-182.
- Rowatt, Wade C. & Kirkpatrick, Lee A. (2002). Two Dimensions of Attachment to God and Their Relation to Affect, Religiosity, and Personality Constructs. *Journal for the Scientific Study of Religion* 41(4): 637-651. DOI: <https://doi.org/10.1111/1468-5906.00143>
- Russell, Daniel, Letitia, A. Peplau, Mary, L. Ferguson (1978). Developing a Measure of Loneliness. *Journal of Personality Assessment*, 42: 290-294.
- Russell, Daniel and Peplau, Leticia A. & Cutrona, Carolyne E. (1980). The revised UCLA loneliness scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*, 39: 472-480.
- Salii, Anatoliy. (2018). Samotnist ta emihratsiia: do pytannia osmyslennia fenomeniv na prykladi tvorchosti myslyteliv emihratsii "pershoi khvyli" (20-ti - 40-vi roky KhKh stolittia). *Hileia: naukovi visnyk. Zbirnyk naukovykh prats*, 130 (3). pp. 200-203 (In Ukrainian).
- Scharfe, Elaine & Kim, Bartholomew (1994). Reliability and stability of adult attachment patterns. *Personal Relationships*, 1: 23-43.
- Schmidt, Nancy & Vello, Sermat (1983). Measuring loneliness in different relationships. *Journal of Personality and Social Psychology*, 44: 1038-1047.
- Shatalov, Yevgen (2018). Stanley J. Grenz's Communitarian Ecclesiology. *Skhid*, 3 (155): 94-97. DOI: [https://doi.org/10.21847/1728-9343.2018.3\(155\).139493](https://doi.org/10.21847/1728-9343.2018.3(155).139493)
- Shaver, Phillip R. & Cinthia, Hazan (1992). Adult Romantic Attachment: Theory and Evidence. In *Advances in Personal Relationships*: vol. 4, edited by W. Jones, & Daniel Perlman. London: Jessica Kingsley, pp. 300.
- Thomas, Virginia & Azmitia, Margarita (2019). Motivation matters: Development and Validation of the Motivation for Solitude Scale - Short Form (MSS-SF). *Journal of Adolescence*. 70: 33-42. DOI: <https://doi.org/10.1016/j.adolescence.2018.11.004>.
- Weiss, Robert (1975). *Loneliness: the Experience of Emotional and Social Isolation*. Cambridge: MIT press, 236 p.
- Zahl, Bonnie Poon & Gibson, Nicholas J. S. (2012). God Representations, Attachment to God, and Satisfaction with Life: A Comparison of Doctrinal and Experiential Representations of God in Christian Young Adults. *International Journal for the Psychology of Religion*, 22: 3: 216-230. DOI: <https://doi.org/10.1080/10508619.2012.670027>.
- LIST OF REFERENCES LINKS**
- Ainsworth M. D., Salter M. C., Blehar E. W., Wall S. Patterns of attachment: Assessed in the Strange Situation and at home. Hillsdale, NJ: Erlbaum, 1978.
- Bartholomew K., Horowitz L. M. Attachment Styles among Young Adults: A Test of a Four-Category Model. *Personality and Social Psychology*. 1991. № 61. Pp. 226-244.
- Beck R., McDonald A. Attachment to God: The Attachment to God Inventory, Tests of Working Model Correspondence, and an Exploration of Faith Group Differences. *Journal of Psychology and Theology*. 2004. №32. Pp. 92-103.
- Bowlby J. Attachment. Tavistock: Institute of Human Relations: Basic Books, 1982. (Second edition). (Attachment and loss).
- Bowlby J. Loss. New York: Basic Books, 1980. (Attachment and loss).
- Bowlby J. Separation. New York: Basic Books, 1973. (Attachment and loss).
- Bradshaw M., Ellison C. G., Flannelly K. J. Prayer, God Imagery, and Symptoms of Psychopathology. *Journal for the Scientific Study of Religion*. 2008. №47. Pp. 644-659.
- Cattell R. B. The scientific use of factor analysis in behavioral and life sciences. New York: Plenum Press, 1978.
- Clinton T., Sibs G. Attachments: why you love, feel and act the way you do. Brentwood: Integrity publishers, 2002.
- Cramer K. M., Barry J. E. Conceptualizations and Measures of Loneliness: a Comparison of Subscales. *Personality and Individual Differences*. 1999. №27. Pp. 491-502.
- DiTommaso E., Spinner B. The development and initial validation of the Social and Emotional Loneliness Scale for Adults "SELSA". *Personality and Individual Differences*. 1993. №14. Pp. 127-134.
- Goossens L., Beyers W. Comparing Measures of Childhood Loneliness: Internal Consistency and Confirmatory Factor Analysis. *Journal of Clinical Child and Adolescent Psychology*. 2002. №31 (2). Pp. 252-262.
- Hsu L. R., Hailey J. B., Range L. M. Cultural and emotional components of loneliness and depression. *The Journal of psychology*. 1987. №121 (1). Pp. 61-70.
- Hughes E. M., Waite L. J., Hawkey L. C., Cacioppo J. T. A Short Scale for Measuring Loneliness in Large Surveys: Results from Two Population-Based Studies. *Res Aging*. 2004. №26 (6). Pp. 655-672.
- Hyde K. E. Religion in Childhood and Adolescence: A Comprehensive Review of the Research. Birmingham: Religious Education Press, 1990.
- Kirkpatrick L. A. Attachment, Evolution and the psychology of religion. NY: The Guilford Press, 2005.
- Kirkpatrick L. A., Shillito D. J., Kellas S. L. Loneliness, social support, and perceived relationships with God. *Journal of Social and Personal Relationships*. 1999. №16. Pp. 513-522.
- Lykes V. A., Kemmelmeier M. What Predicts Loneliness? Cultural Difference between Individualistic and Collectivistic Societies in Europe. *Journal of Cross-Cultural Psychology*. 2014. №45 (3). Pp. 468-490.
- MacCallum R. C., Widaman K., Zhang S., Hong S. Sample size in factor analysis. *Psychological Methods*. 1999. №4. Pp. 84-99.
- Marangoni C., Ickes W. Loneliness: A Theoretical Review with Implications for Measurement. *Journal of Social and Personal Relationships*. 1989. №6. Pp. 93-128.
- Marcoen A., Goossens L., Caes P. Loneliness in pre through late adolescence: Exploring the contributions of a multidimensional approach. *Journal of Youth and Adolescence*. 1987. №16. Pp. 561-577.
- Mayers A. M. The Existential Loneliness Questionnaire: Background, Development, and Preliminary Findings. *Journal of Clinical Psychology*. №58 (9). Pp. 1183-1193.
- Mijuskovic B. Loneliness: An interdisciplinary approach. *Psychiatry*. 1977. №40. Pp. 113-131.
- Mikulincer M., Shaver P. R. An Attachment Perspective on Loneliness. *The Handbook of Solitude: Psychological Perspectives on Social Isolation, Social Withdrawal, and Being Alone*. Hoboken, New Jersey, 2014. Pp. 34-50.
- Moustakas C. E. Loneliness. Englewood Cliffs, NJ: Prentice-Hall, 1961.
- Paloutzian R. F., Ellison C. W. Loneliness, spiritual well-being and the quality of life. *Loneliness: A sourcebook of current theory / ed. L. A. Peplau, D. Perlman*. New York: Wiley, 1982. (Research and therapy). Pp. 224-237.
- Rokach A., Bacanlı H. Perceived causes of loneliness: A cross-cultural comparison. *Social Behavior and Personality*. 2001. №29 (2). Pp. 169-182.
- Rowatt W. C., Kirkpatrick L. A. Two Dimensions of Attachment to God and Their Relation to Affect, Religiosity, and Personality Constructs. *Journal for the Scientific Study of Religion*. 2002. №41 (4). Pp. 640.
- Russell D., Peplau L. A., Ferguson M. L. Developing a Measure

- of Loneliness. *Journal of Personality Assessment*. 1978. №42. Pp. 290-294.
- Russell D., Peplau L. A., Cutrona C. E. The revised UCLA loneliness scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*. 1980. №39. Pp. 472-480.
- Scharfe E., Bartholomew K. Reliability and stability of adult attachment patterns. *Personal Relationships*. 1994. №1. Pp. 23-43.
- Schmidt N., Sermat V. Measuring loneliness in different relationships. *Journal of Personality and Social Psychology*. 1983. №44. Pp. 1038-1047.
- Shatalov Yevgen. Stanley J. Grenz's Communitarian Ecclesiology. *Skhid*. 2018. № 3 (155). p. - 94-97. DOI: 10.21847/1728-9343.2018.3(155).139493
- Shaver P. R., Hazan C. Adult Romantic Attachment: Theory and Evidence. *Advances in Personal Relationships* / edited by W. Jones & Daniel Perlman. London: Jessica Kingsley, 1992. p. 300.
- Thomas V., Azmitia M. Motivation matters: Development and Validation of the Motivation for Solitude Scale - Short Form (MSS-SF). *Journal of Adolescence*. 2019. №70. Pp. 33-42.
- Weiss R. Loneliness: the Experience of Emotional and Social Isolation. Cambridge: MIT press, 1975. 236 p.
- Zahl B. P., Gibson N. J. God Representations, Attachment to God, and Satisfaction with Life: A Comparison of Doctrinal and Experiential Representations of God in Christian Young Adults. *International Journal for the Psychology of Religion*. 2012. №22. Pp. 216-230.
- Гриценко В. А. "Вплив сім'ї на формування самотності старших підлітків". *Гуманітарний вісник ДВНЗ "Переяслав-Хмельницький державний педагогічний університет імені Григорія Сковороди"*: зб. наук. пр. Вип. 23, 312-316. Переяслав-Хмельницький: ДВНЗ, 2011.
- Ігнатенко І. В. Філософсько-антропологічний вимір феномена самотності: від модерну до постмодерну: дис. ... канд. філ. наук / Національний авіаційний університет. Київ, 2012.
- Іщук Н. Обриси християнського розуміння феномена спілкування. *Схід*. 2015. № 6 (138), вересень. С. 16-20.
- Каралаш Н. Г. Життєвий світ людини та переживання нею стану самотності як предмет філософського аналізу: дис. ... канд. філ. наук. Чернівці, 1999.
- Салій А. Самотність та еміграція: до питання осмислення феноменів на прикладі творчості мислителів еміграції "першої хвилі" (20-ті - 40-ві роки ХХ століття). *Гілея: науковий вісник. Збірник наукових праць* / гол. ред. В. М. Васькевич. К.: "Видавництво "Гілея", 2018. Вип. 130 (3). С. 200-203.
- Чорнобай В. А. Стратегії подолання самотності християн: соціально-релігійний аспект. *Практична Філософія*. К.: Центр практичної філософії; Ін-т філософії ім. Г.С. Сковороди НАНУ, 2018. Вип. 2, (68). С. 193-199.

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РОЗРОБКА І ПЕРВИННА ВАЛІДАЦІЯ ОПИТУВАЛЬНИКА САМОТНОСТІ СЕРЕД ХРИСТІЯН (ОССХ)

У статті представлено процес розробки і первинної валідації «Опитувальника самотності серед християн» (ОССХ) - унікальної методики вимірювання п'яти типів самотності: соціальної, емоційної, культурної, екзистенційної та духовної. Використовуючи дані вибірки, що складалася з 302 віруючих різних християнських конфесій в Україні, був проведений аналіз достовірності, валідності і факторний аналіз основних компонентів цієї попередньої версії вимірювання п'яти видів самотності. Результати аналізу основних компонентів підтримують багатовимірну концептуалізацію самотності. Результати дослідження взаємозв'язку ОССХ з іншими методиками, такими як: Шкала самотності UCLA-3, Опитувальник про Стосунки (RQ) і Вимірювання Прив'язаності до Бога (AGI), показали, що ОССХ є досить надійним інструментом з точки зору внутрішньої узгодженості (коефіцієнт α Кронбаха в діапазоні від 0,78 до 0,80), а також конкурентної та дискримінантної валідності.

Ключові слова: соціальна самотність; емоційна самотність; екзистенційна самотність; культурна самотність; духовна самотність; прив'язаність; опитувальник; факторний аналіз основних компонент.

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