

Loneliness Experienced by People with Chemical Addiction: its Characteristics

Lada YAKOVYTSKA¹,
Viktoriia SYNYSHYNA²,
Tetiana PASHKO³,
Ivanna PARFANOBYCH⁴,
Aleksandr KOCHARIAN⁵,
Nataliia BARINOVA⁶

¹National Aviation University, Ukraine,
lada_yakovickaya@ukr.net

²Uzhhorod National University, Ukraine,
vsinishina@ukr.net

³Luhansk Taras Shevchenko National University, Ukraine, tatjana.pashko@gmail.co

⁴Ternopil Volodymyr Hnatiuk National Pedagogical University, Ukraine,
parfanovichi@ukr.net

⁵V.N. Karazin Kharkiv National University, Ukraine, kocharian55@gmail.com

⁶V.N. Karazin Kharkiv National University, Ukraine, barinova.n2310@gmail.com

Abstract: *Nowadays, people can feel completely lonely, even being in different forms of relationships. The article uses the principles and categories of a systemic approach to view loneliness as the only system whose integrity is ensured by the fact that the experience of loneliness depends on the interaction of psychological components (emotional, behavioural, motivational-volitional). Feeling constant pressure of negative feelings, related to loneliness, one can depart from reality by taking various narcotic substances, which is very common today. Psychological methods were used to study psychological components of loneliness experience among people with chemical addiction. Importantly, the article should solve the following applied tasks: to analyze structural elements of loneliness experience among people with chemical addiction; to describe the internal structure of loneliness experience among people with chemical addiction. A detailed analysis of the obtained data has proved the importance of emotional-axiological and behavioural components of loneliness experience among people with chemical addiction. Their perception of such an experience is associated with a lack of close relationships and good communication skills, so they tend to be alone. Furthermore, the obtained results suggest that the prevailing dissociated type of loneliness among people with chemical addiction is caused by one's feeling of loneliness, alienation and, thus, anxiety.*

Keywords: *Loneliness, people with chemical addiction, alienation, dissociated loneliness.*

How to cite: Yakovyt'ska, L., Synyshyna, V., Pashko, T., Parfanovych, I., Kocharian, A., & Barinova, N. (2022). Loneliness Experienced by People with Chemical Addiction: its Characteristics. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 13(1), 426-447. <https://doi.org/10.18662/brain/13.1/292>

Introduction

Because of our network-based society today, the feeling of loneliness may, at first sight, seem quite a paradoxical phenomenon. Indeed, people can engage in a wide range of communication activities and relationships on the Internet. However, communicating or transmitting information, one cannot meet one's emotional needs. Besides, dependence on social networking technologies can harm social connections. After conducting a relevant survey, Peper & Harvey (2018) claim that those respondents who used technical means most often complained of feeling loneliness, isolation, depression, and anxiety. The researchers believe that loneliness is, partially, a result of replacing face-to-face interaction with a networked form of communication where body language and other signals cannot be interpreted (Peper & Harvey, 2018).

Nowadays, people can feel completely lonely, even being in different forms of relationships (Demchenko, 2021; Kosholap, 2021; Prots, 2021). Feeling constant pressure of negative feelings, related to loneliness, one can depart from reality by taking various narcotic substances, which is very common today. Consequently, loneliness can lead to different deviations, one of which is using chemicals that lead to adaptive dependent behaviour. Indeed, most people with chemical addiction deal with a terrible and unbearable feeling of loneliness. It is known that behavioural dependence is one of the variants to escape oneself. After taking the chemical, one feels relief from fears, which is a way to fill the inner void. Thus, drugs help addicts to protect themselves from reality.

It must be noted that loneliness can determine the use of chemicals. At the same time, addicts, over time, tend to distance themselves from society, and, therefore, a vicious circle emerges: one "flees" from loneliness into drug addiction, and drug addiction deepens the feeling of loneliness.

The above-mentioned facts coincide with the conclusions by Brown (1993). The scholar states that the concept of dependence is related to external and internal conflicts. The consumption of psychoactive substances leads to conflict with other people or self-conflict. From a psychological and psychiatric point of view, behavioural addictions combine isolation, affective disorders, problems in social relationships, professional or interpersonal difficulties, asociality, as well as the absence of friends, family or personal responsibilities (Brown, 1993; Matheson et al., 2019).

Currently, the range of studies on the genesis of chemical addictions is quite wide. However, most of them deal with the influence of certain

factors on the occurrence of addictions. These are mostly depressive states (Audrain-McGovern et al., 2012; Benner & Wang, 2015; Clark et al., 2011; Lim et al., 2016), stresses (Ames & Roitzsch, 2000), ageing effects (Anderson & Levy, 2003; Dowling et al., 2008). Those factors that cause structural changes in the personality and behaviour of addicts necessitate the use of a systematic approach to their study. In particular, they involve analyzing a set of factors, among which psychological factors are quite prominent. A systemic approach allows one to identify and justify methods of effective psychocorrective and psychoprophylactic work on behavioural, emotional, and cognitive sensations in addicts experiencing loneliness. This aspect is one of the most important applied tasks in psychological practice. As rightly noted by Johnson et al. (2015), programmes on volunteering and spirituality, as well as other corrective and preventive psychological ones, bring positive results in terms of addictive behaviour correction. Thus, one can assume that the additivity of loneliness is not a system of invariable attributes. Instead, it is associated with flexible personal, situational, and social factors. Therefore, once the causes of chemical addictions have been examined, they can be corrected. As one can see from relevant studies (Brown, 1993; Burholt & Scharf, 2014; Floyd & Woo, 2020; Soest et al., 2020), the ways to reduce loneliness are based mainly on the presence of social contacts. Cohen-Mansfield et al. (2018) managed to reduce loneliness levels in older people through the theory of intervention, taught the respondents to overcome barriers on the way to social contacts and increase their social self-efficacy. Since loneliness is often the result of a mismatch in the interaction between the individual and the environment, helping lonely people in some cases may be a change of the situation, not the individual (Johnson et al., 2015). Rosen et al. (2018) worked on developing problem-solving skills in older people with methadone addiction who were struggling with depression. Working with patients who suffered from depression incurred by frequent drug and alcohol use, Delgadillo et al. (2015) observed a moderate improvement in depressive symptoms due to the means of behavioural activation and cognitive behavioural therapy based on self-help.

Thus, one can conclude that psychology today focuses on a study of psychological preconditions of chemical addiction and, primarily, loneliness as its psychological factor.

In Ukraine and abroad, the problem in question is studied together with characteristics of loneliness, its causes, manifestations, as well as the impact on people at different periods of their lives (Aivazian, 2011; Varava,

2009; Korchagina, 2005; Khamitov, 1995; Nowland et al., 2018; Peltzer & Pengpid, 2019)

However, there are many attempts to specify the experience of loneliness as the determinant of psychoactive substance use, which has so far been insufficiently studied. One should also pay particular attention to those studies that deal with multidimensional experiences of loneliness among people with chemical addiction due to emotional stress, depression, social inadequacy, low social status, thirst for growth, interpersonal isolation and self-rejection (Brown, 1993; Åkerlind & Hörnquist, 1992; Shedler & Block, 1990; Rokach & Brock, 1997; Rokach, 2012).

Therefore, this research especially relies on the study by Åkerlind & Hörnquist (1992). They claim that theoretical discussions based on clinical observations date back to the 1950s. However, systemic studies are not numerous and were mostly conducted over the past two decades. Despite this fact, their analysis indicates that the experience of loneliness may be important at all stages of alcoholism: as a supportive factor in the growth of abuse and as a burden in attempts to break the addiction. Alcoholics indeed feel lonelier than members of other social groups. Psychoactive substance abuse is surely associated with several negative characteristics. Instead, the feeling of loneliness is more related to the generally negative perception of oneself and relationships with other people, as well as to the general dissatisfaction with life (Åkerlind & Hörnquist, 1992).

A detailed analysis of relevant scientific literature shows that loneliness should be understood as one's subjective feeling of inability to satisfy the need for interaction, communication, and intimacy, accompanied by negative emotional manifestations. With regard to this research, loneliness is considered as a negative state. However, it should be borne in mind that loneliness can also be manifested in one's positive subjective experience such as a desire to be alone. One might view a positive perception of loneliness as the beginning of personal growth and self-actualization. Therefore, it is important to distinguish between being lonely and being alone. Indeed, humans are social creatures and need social interaction. At the same time, they need the alone time for reflection and development of their identity, spiritual growth. Such transformation from loneliness to solitude can occur only when the desire to be alone is not associated with the lack of interpersonal relationships.

Korchagina (2005) considers it necessary to distinguish such notions as "loneliness" and "isolation". Loneliness is more personal than isolation

and characterized by an internal, psychological context, in addition to external manifestations. The researcher understands loneliness as a psychological state which reflects one's feeling of individuality, subjective impossibility, or unwillingness to feel adequate response, acceptance, and recognition of oneself by other people (Korchagina, 2005). Thus, loneliness is identified by both external factors and internal psychological causes.

Khamitov (1995) divides loneliness into internal and external. Internal loneliness is observed in people who consider themselves deeply lonely. They are not isolated from other people and yet feel lonely, subjectively experiencing this isolation from people. External loneliness is the absence of a very close person nearby, objective isolation from social interaction with other people (Khamitov, 1995).

Nowland et al. (2018) assume that loneliness is a common psychological and social illness.

Thus, it is possible to be lonely when you are among people. Furthermore, loneliness is associated with communication problems, as well as with individual traits. The article **aims** to study the main characteristics of loneliness experienced by people with chemical addiction.

The article uses the principles and categories of a systemic approach to view loneliness as the only system whose integrity is ensured by the fact that the experience of loneliness depends on the interaction of psychological components (emotional, behavioural, motivational-volitional).

The following methods were used to describe psychological components of loneliness experienced by people with chemical addiction: the questionnaire called "Loneliness" (modified by Oleynik (2016)); "A Diagnostic of Subjective Loneliness Experience" (Russell et al., 1978); "A Differential Questionnaire of Loneliness Experience" (Osin & Leontev, 2013); "A Questionnaire for Identifying Loneliness Types (Korchagina, 2005). Empirical research was conducted with patients of the addiction clinic "Palmira" (Pidhirtsi, Kyiv Oblast, Ukraine), aged between 21 and 56 years old. The total number of respondents is 32 people (81 % – men; 19 % – women). Mathematical data processing was performed using the SPSS 17.0 statistical package for Windows.

Components of Loneliness Experienced by People with Chemical Addiction

The article should solve the following applied tasks: 1) to analyze structural elements of loneliness experienced by people with chemical

addiction; 2) to describe the internal structure of loneliness experienced by people with chemical addiction.

A diagnostic of subjective loneliness experience (Russell et al., 1978) views loneliness as subjective perception of deviation of actual social relations from the desired ones. It allows one to analyze respondents' perception of their loneliness and identify levels of social activity and social relationships, perceived as deficient (see Fig. 1).

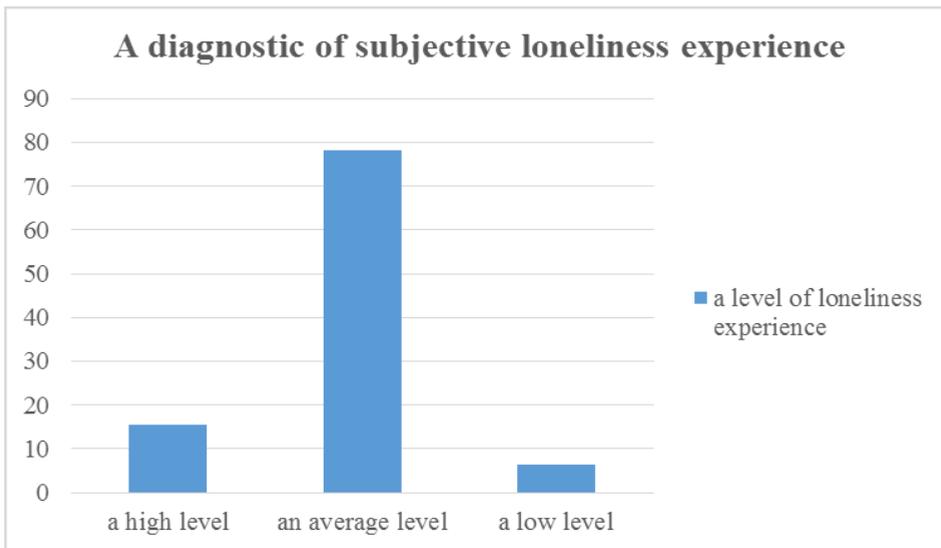


Fig. 1. A diagnostic of respondents' subjective loneliness experience (by levels)

The majority of respondents (78.1%) are at an average level of loneliness; 15.6% of them – at a high level; only 6.25% of them – at a low level. The obtained results prove that most respondents are within “the average norm”. However, Pagava (2014) states that respondents with an average level of subjective loneliness experience may suffer from desolation, deprivation, and demonstrate the negative subjective perception of their position in society.

It is important to note that only two respondents are at a low level. It may be caused by the fact that loneliness experience is broader and more relevant in today's conditions. The number of respondents with average and high levels of loneliness is constantly increasing.

A differential questionnaire of loneliness experience by Osin & Leontev (2013) was used to describe loneliness as a multidimensional phenomenon with both negative and positive sides (see Table 1).

Table 1. Results from studying cognitive component of loneliness experience (based on a differential questionnaire of loneliness experience by Osin & Leontev (2013))

Indicators	High scores	Average scores	Low scores
Isolation	12.6%	81.1%	6.3%
Self-awareness	15.6%	65.65%	18.75%
Alienation	29.2%	58.2%	12.6%
General experience of loneliness	19%	68.4%	12.6%

The obtained results confirm that most respondents demonstrate average scores under these indicators. In most cases, they do not show an extreme desire for isolation and perception of themselves as lonely people. Besides, they are quite satisfied with their relationships with others (family, friends, acquaintances). This result can be interpreted as the rejection or fear of loneliness that makes respondents avoid loneliness and constantly seek social contacts (often, it is not a big circle of people with similar addiction) which slows down self-awareness under such oppressive conditions.

At the same time, low scores seem to be quite rare. It means that respondents' results may change due to certain circumstances, which, accordingly, may lead to high scores over time.

A questionnaire for identifying loneliness types (Korchagina, 2005) was used to identify a dominant type of loneliness experience (see Fig. 2).

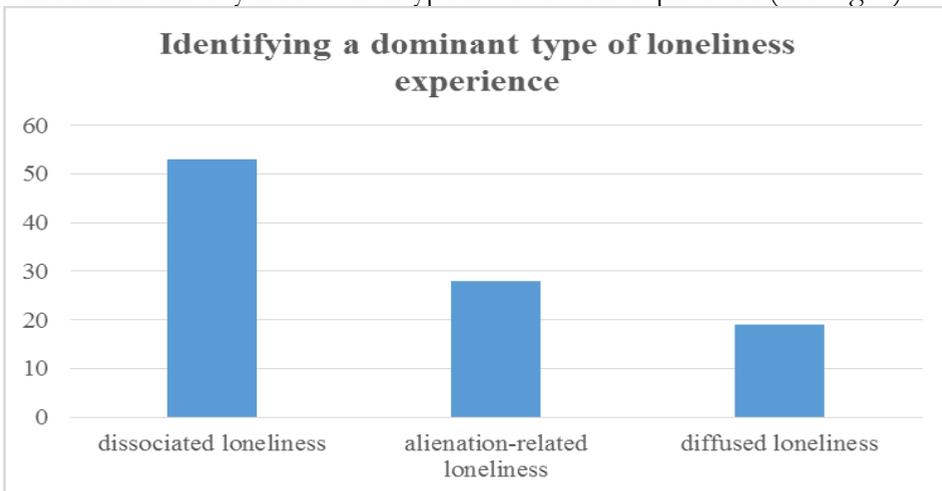


Fig. 2. The distribution of respondents by types of loneliness experience

The obtained results prove that most respondents (52.6%) deal with dissociated loneliness; 27.4% of them – with alienation-related loneliness; 20% of them – with diffused loneliness.

Dissociated loneliness is the most difficult state both by origin and manifestations. First, such people mostly identify themselves with others, accept their way of life and then abruptly alienate from those who seemed so close. They accept only prosocial manifestations of their personality (e.g., I am a good father, friend, specialist) and categorically deny others. Such a combination of identification and alienation, as well as their sudden change in relation even to the same people (parents, sisters, brothers), makes loneliness perceived as more acute, conscious, and painful. Thus, one can see that identification and alienation, as two opposite tendencies and mechanisms for establishing interpersonal relationships, dominate among people with chemical addiction. Furthermore, loneliness levels may vary depending on the dominant type of loneliness (its mechanisms).

The results of the questionnaire called “Loneliness” (modified by Oleynik (2016)) indicate that the greater number of respondents (56.3%) are mostly among people. For 93.75% of them, there are people with whom they feel comfortable and relaxed. All the respondents (100%) have close friends with whom they can share their thoughts and feelings. At the same time, 81.2% of respondents generally do not consider themselves lonely. This indicator correlates with the cognitive component of loneliness experience under a differential questionnaire of loneliness experience by Osin & Leontev (2013). According to it, most respondents show average scores of such experience. Nevertheless, almost all the respondents (93.75%) sometimes feel lonely and want to be alone. The frequency of such manifestations is quite average (6.2 by relative evaluation on a 10-point scale). The obtained results prove that the experience of loneliness almost does not depend on the surrounding people. It is because the situation of loneliness and the desire for it are not associated with the lack of close relationships. Similar primary data were obtained by Zavorotnykh (2009), Korchagina (2005), and Neumoieva (2005).

Below are the general views of respondents on loneliness. Most of them (84.4%) tend to believe that self-absorption is the reason why loneliness can become a continuous experience. Meanwhile, 43.7% of respondents assume that elderly people are lonely; 21.9% of them insist that it is adolescents who mostly feel lonely. Most respondents (50%) see the major reason for loneliness as the lack of mutual understanding and support

by other people; 53.2% of them believe that it is because of self-absorption. It must be noted that 84.4% of respondents claim that people tend to lead a lonely life after failures in their personal lives. Some respondents think that people suffer from loneliness when they feel useless in the family (43.7 %) or after a loss of a close person (40.6 %). Such results give reason to believe that most respondents associate the experience of loneliness with interpersonal relationships (isolation as an unwillingness to create some relationships, lack of understanding, a sense of uselessness).

A substantial part of respondents agrees with the fact that there are also some positive aspects of loneliness, such as time for oneself (46.8 %), freedom (33.2%), independence (18.4%). Its negative aspects are seen in the lack of support (87.5 %), a critical psycho-emotional state (78.2%), depression (28.1%), and self-doubt (12.5%). Thus, most respondents believe that experiencing loneliness one can find time for oneself, however, one might lack the support of others in such situations. It means that respondents' perceptions are conflicting. On the one hand, there is a desire to be alone, and on the other hand, dependence on the attention of the surrounding people.

It must be noted that 59.4% of respondents consider loneliness both as a severe trial and as a necessary element in the life of every person. Therefore, respondents, to some extent, fear such experience and yet need it. They believe that their sociability (56.2%), self-confidence (43.7%) and a sense of humour (40.6%) enable them to overcome the acute feeling of loneliness. According to 71.8% of respondents, self-doubt (71.8%) and isolation (59.3%) prevent them from overcoming it. Below are the most common reasons for loneliness: being single (34.3%); solitude (37.5%); being away from family and after a break-up (40.6 %); boredom (31.3%); feeling useless and unwanted (21.9 %); mutual incomprehension (25 %).

As one can see, along with the realization of personal reasons for loneliness, most respondents emphasize its external causes which lie in the relationships with people close to them (mutual incomprehension, being single, a break-up, feeling useless and unwanted, a loss of a close person).

Thus, according to the first sub-system of loneliness experience (the cognitive component), most respondents adequately reflect on their feelings (an average level of loneliness; average results under the isolation, self-esteem, alienation indicators). Nevertheless, identification and alienation, as two opposite tendencies and mechanisms for establishing interpersonal relationships, dominate. This combination, because of its duality, can

significantly affect other components of the structure of loneliness experience. Respondents' perceptions of such a experience, in most cases, are related to interpersonal relationships and the desire to be alone.

The emotional component of loneliness experience was also studied with the help of the questionnaire called "Loneliness", modified by Oleynik (2016). The emotions block of the questionnaire contains three questions, which show the following results. Most respondents (53.1%) try to avoid loneliness, while 46.9% of them have no such desire. It is indeed ironic that 59.4% of respondents try to accept and understand why they experience loneliness, whereas 21.8% of them have never thought about it. It means that at some unconscious level, a higher percentage of people with chemical addiction do not accept their loneliness. Only when loneliness has more powerful emotional effects, respondents start realizing and accepting this experience.

Sadness was the most common emotional reaction during the experience of loneliness (46.8 %). In general, respondents feel calm and moody (43.7%), peaceful (28.1%), longing for someone (28.1%), anxious (25%), irritated and offended (31.2%), depressed (65.6%), insecure and vulnerable (18.75%). This spectrum of feelings indicates, to a greater extent, the negative experiences of respondents. Thus, their emotions and feelings accompanying the experience of loneliness are characterized by negative modality, which may not always be publicly acknowledged (during interpersonal communication, both formal and informal).

The last question of the questionnaire allowed identifying which colour respondents associate with loneliness. It is worth mentioning that colourful associations are not just feelings associated with a certain object. These are complex images, as well as memories and mental states related to it. Respondents needed to compare their experience of loneliness with some colour. The obtained results are indicative not only of the actual emotional state. They also make it possible to analyze respondents' perceptions about such experiences, which are more unconscious in nature (see Table 2).

Table 2. Respondents' colour associations with the experience of loneliness

Colour	%
Grey	56.3 %
White	6.3%
Black	9.4%
Purple	12.5%
Blue	6.3%

Brown	9.4%
Green	-
Red	-

A detailed analysis of the obtained results shows that most respondents (56.3%) associate loneliness with the colour grey. Being neutral (neither bright nor dark), this colour is not annoying and has no mental tendencies. The colour grey means the neutrality of both a subject and an object, inside and outside. Such data prove the previous results that loneliness is related to neutral emotions and feelings, as well as “the feeling of the void”.

The study of the emotional component demonstrates that loneliness can be “positive”, “negative” or “neutral” for people with chemical addiction. Similar data were obtained by Zavorotnykh (2009). Even though it is difficult to find out the real attitude of respondents towards loneliness, one can see that most respondents have a neutral emotional attitude towards the experience of loneliness and yet feel negative about the emotions accompanying it.

The behavioural component which manifests itself as one’s activity in various forms of interpersonal interaction indicates the following (see Table 3).

Table 3. Results from studying behavioural component of loneliness experience (based on a differential questionnaire of loneliness experience by Osin & Leontev (2013))

Indicators	High scores	Average scores	Low scores
Dysphoria	28	56.3	15.7
Loneliness as a problem	18.75	62.5	18.75
Need for a company	31.25	53.1	15.65
Joy of solitude	18.75	56.3	24.95
Dependence on communication	34.4	46.9	18.7
Positive loneliness	6.3	78.1	15.6

The obtained results prove that most respondents also show average scores under these indicators. Average scores indicate that in most cases, they do not express extremely negative feelings associated with being alone and do not consider loneliness as an extremely negative phenomenon.

Besides, they feel an adequate need for communication, may occasionally accept loneliness and solitude and do not tend to communicate with other people to avoid loneliness. Instead, they can use solitude to know more about themselves. These data correlate with the choice of the colour grey. The distribution of respondents by levels confirms that there are slightly more respondents with a high level under such indicators as “dysphoria”, “need for a company”, “dependence on communication”, than with a low level. In general, however, respondents demonstrate average results.

The behavioural component was also studied with the help of the questionnaire called “Loneliness”, modified by Oleynik (2016). The obtained results are as follows: 15.7% of respondents want to be alone several times a week; 9.4% of them do not want it at all; 71.8% of respondents can feel such a need at least once a day; only one respondent constantly wants to be alone. Thus, the greatest number of respondents quite often feels the need for solitude. When experiencing loneliness, most respondents (81.2%) wish to distance themselves from other people to be alone; 12.6% of them always want to be with friends and 6.2% of respondents avoid thinking that they feel lonely. One can conclude that most respondents try to use loneliness for their reflection since they do not tend to engage in interpersonal interaction during spare time. Also, in such situations, most people with chemical addiction do the following: 12.5% of respondents stay alone and take possible positives from it; 15.6% of them try to isolate themselves from people, even though it brings mostly negative feelings; 62.5% of them feel indifferent to themselves and others; only 9.4 % of respondents wait until these feelings disappear on their own.

A detailed analysis of the answers to the questions indicates that respondents’ desires and actions during the experience of loneliness mostly coincide (the need to be alone). Below are the features of a lonely person’s behaviour: solitude, isolation, and alienation. Solitude as a mechanism of loneliness experience dominates this research. The following are the factors that help respondents to overcome the experience of loneliness: close people (46.9%); self-strength (37.5%); distractions (15.6%). These results are somewhat ironic, as well as the mechanisms for establishing interpersonal relationships. On the one hand, most respondents try to be alone; on the other hand, they strive for interaction with other people to avoid loneliness. The reasons behind it are related to the intensity of loneliness experience and the surroundings during this period.

According to the behavioural component, the dominant mechanism of loneliness experience is solitude, given that respondents mostly show a desire to be alone and do not feel negative about it. A study of how the components of loneliness experienced by people with chemical addiction operate contains the following results:

- respondents' perception of loneliness experience is mostly related to interpersonal relationships and the desire to be alone; identification and alienation, as two mechanisms of such an experience, dominate simultaneously and thus reveal opposite tendencies leading to certain complications;
- respondents demonstrate a neutral emotional attitude towards loneliness but feel negative about it;
- solitude acts as the dominant mechanism of loneliness experience under the behavioural component.

The obtained results were further processed by the methods of factor analysis. Computer data processing was conducted using SPSS 17.0 software package.

Factor analysis aimed to create a model that allows one to identify the minimum number of factors reflecting the most essential characteristics of the phenomenon under study. Such a procedure makes it possible to find out whether the selected methods are suitable for identifying the hidden latent structure, namely, the key components of loneliness experienced by people with chemical addiction. It was also vital to describe the structure of links between cognitive, emotional, and behavioural components within such an experience.

Each method of factor analysis lies in transforming the original structure of the coefficients matrix of variable correlations involved in the research. This leads to shortening the matrix of factors that contains a load of each variable for each factor. The shortened matrix is one of the possible actualizations of the latent structure of loneliness experienced by people with chemical addiction.

Factor analysis results after the Varimax normalized procedure show that the experience of loneliness depends on structural characteristics of its components, namely, behavioural, and emotional-axiological (the analysis of the indicators included in this factor made it possible to somewhat change the original name of the component).

The behavioural factor (see Table 4) includes such indicators as dependence on communication (-0.548), loneliness as a problem (-0.519),

need for a company (-0.490), the joy of solitude (0.434), resources of solitude (0.429). This factor clarifies the characteristics of the subject's activity in various forms of interpersonal interaction. Given the essence of factor loads, this factor was identified as "a behavioural component of loneliness experience".

The indicators, which are part of the behavioural factor, reflect respondents' actions when they experience loneliness. In such situations, they do not depend on communication and other people and thus are motivated to seek the alone time. If they are dependent on communication, it can lead to their isolation, even to the loss of individuality (due to a negative social attitude) and additive behavioural forms. If they demonstrate excessive dependence on others, they will not be able to separate from others and find positive aspects of being alone.

Table 4. The behavioural component of loneliness experience

Indicators	Behavioural factor
Loneliness as a problem	-0.519
Need for a company	-0.490
Joy of solitude	0.434
Resources of solitude	0.429
Dependence on communication	-0.548
% of total dispersion	1.326

Osin & Leontev (2013) also believe that the awareness of one's own loneliness can cause one to feel uncomfortable and ashamed because such a state is often stigmatized by society (p. 58). Lonely people are perceived as weak, which increases the fear of loneliness. In turn, it can lead to displacing the experience of loneliness or, conversely, to the constant search for a company and establishing numerous superficial contacts. In any case, the fear of loneliness becomes a serious interruption on the way to personal development.

Table 5. The emotional-axiological component of loneliness experience

Indicators	The emotional-axiological factor
Self-awareness	0.447
Dysphoria of loneliness	-0.531
Close people with whom one can share one's experiences	0.589

A desire to be alone	0.401
An image of oneself as a lonely person	0.594
% of total dispersion	1.996

Table 5 shows the factor loads for the main parameters that formed the emotional-axiological factor. This factor deals with the following indicators: an image of oneself as a lonely person (0.594); close people with whom one can share one's experiences (0.589); dysphoria of loneliness (-0.531); self-awareness (0.447); a desire to be alone (0.401). Given the significant factor loads of the scales that formed this factor, this research identifies it as "the emotional-axiological component of loneliness experience". This component enables the resource-related function of such an experience.

Respondents' imagining themselves as lonely people (the self-awareness indicator) correlates with high rates regarding an image of oneself as a lonely person and a need for close people with whom one can share one's experiences. Consequently, respondents feel the lack of interpersonal relationships and cannot find other people with whom they can get contact, which only intensifies their experience of loneliness. In this case, respondents deal with the cognitive dissonance between the desire to be alone and the lack of emotional closeness with other people.

Some complications are possible when people with chemical addiction lose significant connections with others and launch the alienation mechanism in their own experiences. Such perception of others sharpens the desire to be alone and discourages one from searching for people with whom one can share thoughts and experiences.

The identified factors highlight the emotional-axiological and behavioural components of loneliness experienced by people with chemical addiction. Their importance lies in the fact that the perception of loneliness experience is associated with the lack of close relationships and good communication skills, which only increases the desire to be alone. These reflexive conclusions indeed affect the behavioural component since it determines the way how this experience operates.

The obtained results confirm that an image of oneself as a lonely person, alienation and hence anxiety ultimately determine the dominance of dissociated loneliness among people with chemical addiction. This type of loneliness decreases the volitional and motivational orientation of respondents. Even though they positively evaluate their own experience of

loneliness and want to be alone, they do not tend to use this time to solve current problems and develop.

Statistical analysis verifies the previous hypothesis that people with chemical addiction view loneliness as a personal value that significantly depends on the functioning of social and behavioural components.

Emotions and Feelings Accompanying the Experience of Loneliness

Similar results can be found in the research by Yakhnich & Michael (2016). They studied the trajectories of drug abuse among immigrants from the former Soviet Union and concluded that all the trajectories converged in the experience of loneliness. At the same time, they believe that it is possible to rectify the situation by restoring a sense of identity (Yakhnich & Michael, 2016). As shown by this research, most respondents associate the experience of loneliness with the nature of interpersonal relationships.

Furthermore, this research studies loneliness experienced by people with chemical addiction under the psychological components of loneliness determined with the help of the questionnaire. Wang & Dong (2018) also claim that it is possible to influence one's perception of loneliness. They identified neuroticism and awareness of such perception of loneliness as independent variables regarding it. A detailed analysis of the obtained data shows that both characteristics are largely associated with loneliness. The increase of neuroticism was related to the probability of feeling loneliness and the increase of awareness per unit with a reduced risk of loneliness. It means that people with average and high levels of neuroticism feel lonely more often. As noted by Wang & Dong (2018), respondents with high reflexivity had a lower risk of loneliness compared to those with low levels. The links between neuroticism and loneliness have also been proven by Uziel et al. (2019).

Generally, perceptions of loneliness among people with chemical addiction are associated with the desire to be alone. Respondents' emotions and feelings accompanying the experience of loneliness are characterized by negative modality. Rokach & Brock (1997) state that the loneliness of people who consumed ecstasy manifested itself in emotional pain, confusion, sadness, helplessness, hopelessness and emptiness, which are an integral part of loneliness experience. The researchers conducted an analysis that included five factors. The most robust factor to emerge was emotional distress (which accounted for 19 % of the variance). This included items that captured the intense pain, inner turmoil, hopelessness, and feelings of emptiness

associated with loneliness. The second factor, social inadequacy and alienation (7 % of the variance) addressed the perception and concomitant self-generated social detachment which were reported as part of the loneliness experience. The third factor, growth and discovery (4% of the variance) captured the positive, growth-enhancing, and enriching aspects of loneliness and the increased feelings of inner strength and self-reliance which follow. Interpersonal isolation (3% of the variance) was the fourth factor. It depicted feelings of alienation, abandonment, and rejection, which were reported as related to a general lack of close relationships and/or absence of a primary romantic relationship. The fifth factor, self-alienation (3% of the variance) described a detachment from one's self that is characterized by numbness, immobilization, and denial. In all, these factors accounted for 36% of the variance (Rokach & Brock, 1997). In this research, most respondents identify the external cause of loneliness, which is the relationship with others.

Rokach (2012) studies the manifestations of loneliness in active people in different life situations. The researcher pays particular attention to cross-cultural studies of loneliness. Her study also proves that loneliness is an unpleasant and painful multidimensional experience, which is universal among all people and a unique subjective experience influenced by both one's assumptions and situational variables (Rokach, 2012).

These results relate to those described in this research. Having analyzed different approaches to studying loneliness, the authors of the article agree with those researchers who claim that loneliness components are multivariate as much as the numerous and variable range of its psychological and social determinants.

Conclusions

The article identifies the internal structure of loneliness experience, as well as the links between loneliness indicators (low, average, high) and indicators of cognitive, emotional, behavioural, and motivational-volitional components of the structure of loneliness experience. Thus, there are slightly more respondents with a high level of loneliness experience under such scales as "dysphoria of loneliness", "need for a company", "dependence on communication". The dominant mechanism of loneliness experience is solitude as the most easily realized personal choice for people with chemical addiction characterized by the negative background of social interaction. The dominance of dissociated loneliness among people with

chemical addiction is quite predictable since such a position protects them from excessive experiences.

The identified characteristics of loneliness experience among people with chemical addiction should be further checked based on a broader sample to see how the overall level of loneliness is related to the propensity to chemical addiction. Given that loneliness is often caused by a mismatch in the interaction between the individual and the environment, helping lonely people may change the situation, rather than the individual. The variety of factors that lead to loneliness and, ultimately, to addiction corresponds to the variety of strategies for preventive and corrective interventions. The ways of reducing loneliness are mainly based on the presence of social contacts. This research has proved that the correction of loneliness and, accordingly, prevention of addiction can occur through special training aimed at complicating the system of motives and expanding their range.

References

- Aivazian, L. Yu. (2011). Vzaiemozviazok subiektyvnoho vidchuttia samotnosti I rozvytku osobystosti [The links between a subjective feeling of loneliness and personality development]. *Problemy suchasnoi psykholohii* [Problems of Psychology Today], 13, 12–21. <http://pip.med-expert.com.ua/index.php/2227-6246/article/view/160933>
- Akerlind, I., & Hörnquist, J. O. (1992). Loneliness and alcohol abuse: A review of evidences of an interplay. *Social Science & Medicine*, 34(4), 405–414. [https://doi.org/10.1016/0277-9536\(92\)90300-F](https://doi.org/10.1016/0277-9536(92)90300-F)
- Ames, S. C., & Roitzsch, J.C. (2000). The impact of minor stressful life events and social support on cravings: A study of inpatients receiving treatment for substance dependence. *Addictive Behaviors*, 24(4), 539–547. [https://doi.org/10.1016/S0306-4603\(00\)00069-1](https://doi.org/10.1016/S0306-4603(00)00069-1)
- Anderson, T. L., & Levy, J. A. (2003). Marginality among older injectors in today's illicit drug culture: assessing the impact of ageing. *Addiction*, 98(6), 761–770. <https://doi.org/10.1046/j.1360-0443.2003.00388.x>
- Audrain-McGovern, J., Rodriguez, D., Rodgers, K., Cuevas, J., Sass, J., & Riley, T. (2012). Reward expectations lead to smoking uptake among depressed adolescents. *Drug and Alcohol Dependence*, 120(1-3), 181–189. <https://doi.org/10.1016/j.drugalcdep.2011.07.020>
- Benner, A. D., & Wang, Y.J. (2015). Adolescent substance use: The role of demographic marginalization and socioemotional distress. *Developmental Psychology*, 51(8), 1086–1097. <https://doi.org/10.1037/dev0000026>

- Brown, R. I. (1993). Some contributions of the study of gambling to the study of other addictions. In W. R. Eadington, & J. A. Cornelius (Eds.), *Gambling behavior and problem gambling* (pp. 241–272). The University of Nevada.
[https://www.scirp.org/\(S\(351jmbntvnsjt1aadkposzje\)\)/reference/Referenc esPapers.aspx?ReferenceID=1752194](https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/Referenc esPapers.aspx?ReferenceID=1752194)
- Burholt, V., & Scharf, T. (2014). Poor health and loneliness in later life: The role of depressive symptoms, social resources, and rural environments. *Journals of Gerontology Series B-Psychological Sciences and Social Sciences*, 69(2), 311–324.
<https://doi.org/10.1093/geronb/gbt121>
- Clark, H. K., Ringwalt, C.L., & Shamblen, S.R. (2011). Predicting adolescent substance use: The effects of depressed mood and positive expectancies. *Addictive Behaviors*, 36(5), 488–493.
<https://doi.org/10.1016/j.addbeh.2011.01.018>
- Cohen-Mansfield, J., Hazan, H., Lerman, Y., Shalom, V., Birkenfeld, S., & Cohen, R. (2018). Efficacy of the I-SOCIAL intervention for loneliness in old age: Lessons from a randomized controlled trial. *Journal of Psychiatric Research*, 99, 69–75. <https://doi.org/10.1016/j.jpsychires.2018.01.014>
- Delgadillo, J., Gore, S., Ali, S., Ekers, D., Gilbody, S., Gilchrist, G., McMillan, D., & Hughes, E. (2015). Feasibility randomized controlled trial of cognitive and behavioral interventions for depression symptoms in patients accessing drug and alcohol treatment. *Journal of Substance Abuse Treatment*, 55, 6–14.
<https://doi.org/10.1016/j.jsat.2015.02.008>
- Demchenko, I., Maksymchuk, B., Bilan, V., Maksymchuk, I., & Kalynovska, I. (2021). Training Future Physical Education Teachers for Professional Activities under the Conditions of Inclusive Education. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(3), 191-213.
<https://doi.org/10.18662/brain/12.3/227>
- Dowling, G. J., Weiss, S.R. B. & Condon, T.P. (2008). Drugs of abuse and the aging brain. *Neuropsychopharmacology*, 33(2), 209–218.
<https://doi.org/10.1038/sj.npp.1301412>
- Floyd, K., & Woo, N. T. (2020). Loneliness and social monitoring: A conceptual replication of Knowles et al. *Personal Relationships*, 27(1), 209–223.
<https://doi.org/10.1111/per.12304>
- Johnson, B. R., Pagano, M. E., Lee, M. T., & Stephen, G. (2015). Alone on the inside: The impact of social isolation and helping others on AOD use and criminal activity. *Youth & Society*, 50(4), 529–550.
<https://doi.org/10.1177/0044118X15617400>
- Khamitov, N. V. (1995). *Filosofiya odinochestva. Opyt vzhyyaniya v problem. Odinochestvo zhenskoye i muzhskoye* [The philosophy of loneliness. The experience of getting used to the problem. Female and male loneliness]. Naukova dumka.
<https://www.studmed.ru/hamitov-n-filosofiya-odinochestva-opyt->

[vzhivaniya-v-problemu-odinochestvo-zhenskoe-i-muzhskoe_2c2ff0aad22.html](https://www.twirpx.com/file/709684/)

- Korchagina, S. G. (2005). *Genezis, vidy i proyavleniya odinochestva* [Origins, types, and manifestations of loneliness]. MPSI. <https://www.twirpx.com/file/709684/>
- Kosholap, A., Maksymchuk, B., Branitska, T., Martynets, L., Boichenko, A., Stoliarenko, O., Matsuk, L., Surovov, O., Stoliarenko, O., & Maksymchuk, I. (2021). Neuropsychological Bases of Self-Improvement of Own Physical Health of Future Teachers in the Course of University Education. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(3), 171-190. <https://doi.org/10.18662/brain/12.3/226>
- Lim, M. H., Rodebaugh, T. L., Zyphur, M. J., & Gleeson, J. F. M. (2016). Loneliness over time: The crucial role of social anxiety. *Journal of Abnormal Psychology*, 125(2), 620–630. <https://doi.org/10.1037/abn0000162>
- Matheson, C., Hamilton, E., Wallace, J., & Liddell, D. (2019). Exploring the health and social care needs of older people with a drug problem. *Drug-Education Prevention and Policy*, 26(6), 493–501. <https://doi.org/10.1080/09687637.2018.1490390>
- Neumoieva, Ye. V. (2005). *Odinochestvo kak psikhicheskiy fenomen i resurs razvitiya lichnosti v yunosheskom vozraste* [Loneliness as a mental phenomenon and a resource for personality development in adolescence]. Tumen State University. <https://www.dissercat.com/content/odinochestvo-kak-psikhicheskii-fenomen-i-resurs-razvitiya-lichnosti-v-yunosheskom-vozraste>
- Nowland, R., Necka, E. A., & Cacioppo, J. T. (2018). Loneliness and social internet use: Pathways to reconnection in a digital world? *Perspectives on Psychological Science*, 13(1), 70–87. <https://doi.org/10.1177/1745691617713052>
- Oleynik, N. O. (2016). *Perezhyvannia samotnosti yak chynnyk samoaktualizatsii osobystosti* [The experience of loneliness as a factor of self-actualization] [Unpublished doctoral dissertation]. Kherson State University. <https://e-catalog.nlb.by/Record/BY-NLB-br0001331671>
- Osin, Ye. N., & Leontev, D. A. (2013). Differentsialnyy oprosnik perezhivaniya odinochestva: struktura i svoystva [A differential questionnaire of loneliness experience: the structure and characteristics]. *Psikhologiya. Zhurnal Vyshey shkoly ekonomiki* [Psychology. Journal of the University of Economics], 10(1), 55–81. <https://cyberleninka.ru/article/n/differentsialnyy-oproshnik-perezhivaniya-odinochestva-struktura-i-svoystva>
- Pagava, O. V. (2014). *Sotsialno-psykholobichni osoblyvosti podolannia cholovichoï samotnosti* [Socio-psychological features of overcoming male loneliness] [Unpublished doctoral dissertation]. Volodymyr Dahl East Ukrainian National University.

- <http://www.disslib.org/sotsialno-psykholohichni-osoblyvosti-podolannja-cholovichoyi-samotnosti.html>
- Peltzer, K., & Pengpid, S. (2019). Loneliness correlates and associations with health variables in the general population in Indonesia. *International Journal of Mental Health System*, 13, Article 24. <https://doi.org/10.1186/s13033-019-0281-z>
- Peper, E., & Harvey, R. (2018). Digital addiction: Increased loneliness, anxiety, and depression. *NeuroRegulation*, 5(1), 3–8. <https://doi.org/10.15540/nr.5.1.3>
- Prots, R., Yakovliv, V., Medynskiy, S., Kharchenko, R., Hryb, T., Klymenchenko, T., Ihnatenko, S., Buzhyrna, I., & Maksymchuk, B. (2021). Psychophysical Training of Young People for Homeland Defence Using means of Physical Culture and Sports. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(3), 149–171. <https://doi.org/10.18662/brain/12.3/225>
- Rokach, A. (2012). Loneliness and drug use in young adults. *International Journal of Adolescence and Youth*, 10, 237–254. <https://doi.org/10.1080/02673843.2002.9747903>
- Rokach, A., & Brock, H. (1997). Loneliness: A multidimensional experience. *Psychology: A Journal of Human Behaviour*, 34(1), 1–9. [https://www.scirp.org/\(S\(vtj3fa45qm1ean45vvffcz55\)\)/reference/ReferencesPapers.aspx?ReferenceID=1139051](https://www.scirp.org/(S(vtj3fa45qm1ean45vvffcz55))/reference/ReferencesPapers.aspx?ReferenceID=1139051)
- Rosen, D., Engel, R., McCall, J., & Greenhouse, J. (2018). Using problem-solving therapy to reduce depressive symptom severity among older adult methadone clients: A randomized clinical trial. *Research on Social Work Practice*, 28(7), 802–809. <https://doi.org/10.1177/1049731516686692>
- Russell, D., Peplau, L., & Ferguson, M. (1978). Developing a measure of loneliness. *Journal of Personality Assessment*, 42(3), 290–294. https://doi.org/10.1207/s15327752jpa4203_11
- Shedler, J., & Block, J. (1990). Adolescent drug use and psychological health: A longitudinal inquiry. *American Psychologist*, 45(5), 612–630. <https://doi.org/10.1037/0003-066X.45.5.612>
- Soest, T. von, Luhmann, M., Hansen, T., & Gerstorf, D. (2020). Development of loneliness in midlife and old age: Its nature and correlates. *Journal of Personality and Social Psychology*, 118(2), 388–406. <https://doi.org/10.1037/pspp0000219>
- Uziel, L., Seemann, M., & Schmidt-Barad, T. (2020). From being alone to being the only one: Neuroticism is associated with an egocentric shift in an alone content. *Journal of Personality*, 88(2), 339–355. <https://doi.org/10.1111/jopy.12494>
- Varava, L. A. (2009). *Osoblyvosti perezhyvannia osobystistiu pochuttia samotnosti u stani sotsialnoi deprivatsii* [The characteristics of one's loneliness experience in a state of social deprivation]. H. S. Kostiuk Institute of Psychology of the

NAES of Ukraine. https://www.studmed.ru/varava-la-osoblivost-perezhivannya-osobistystyu-pochuttya-samotnost-u-stan-socialnoyi-deprivatsii_c7c286b7918.html

- Wang, B., & Dong, X. Q. (2018). The association between personality and loneliness: Findings from a community-dwelling Chinese aging population. *Gerontology and Geriatric Medicine*, 4, 1–9.
<https://doi.org/10.1177/2333721418778181>
- Yakhnich, L., & Michael, K. (2016). Trajectories of drug abuse and addiction development among FSU immigrant drug users in Israel. *Journal of Cross-Cultural Psychology*, 47(8), 1130–1153.
<https://doi.org/10.1177/0022022116660764>
- Zavorotnykh, Ye. N. (2009). *Sotsialno-psikhologicheskiye osobennosti odinochestva kak subyektivnogo perezhivaniya* [Socio-psychological characteristics of loneliness as subjective experience]. Saint Petersburg State University.
<https://www.dissercat.com/content/sotsialno-psikhologicheskie-osobennosti-odinochestva-kak-subektivnogo-perezhivaniya>