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Quality of life among Iranian major depressive disorder patients: a qualitative study

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Abstract

Background Research indicates that the prevalence of Major Depressive Disorder (MDD) is high and it reduces patient's Quality of Life (QoL). Nowadays, in addition to reducing the symptoms of MDD, emphasis is on the concept of QoL as the purpose of treating these patients. However, we still do not know what these patient's attitudes and perceptions are about QoL. This study aims to clarify the Iranian patient's attitudes and perceptions of QoL's meaning through a qualitative paradigm.

Results During the data analysis, "Agitation factors", "Destructive effects", and "Gratifications" were developed as three main themes with 13 main categories, 39 sub-categories, and 879 codes. According to the findings the main priority of patients with MDD was Agitation factors, which plays a remarkable role in the concept of QoL.

Conclusions MDD leads to deterioration in the QoL of these individuals in different parts. The novelty of this study leads to the creation of a deep and realistic attitude in national and global nurses towards the QoL of majorly depressed patients in order to remove the aggravating factors of the disorder and create a pleasant life based on the adequate and specialized understanding of the consequences of this disorder according to the preferences of patients and provide a suitable quality of life for these patients.

Keywords Conventional content analysis, Major depressive disorder, Quality of life

Background

Major depressive disorder (MDD) is one of the most common and serious mental disorders in the worldwide [1]. Due to the World Health Organization (WHO) reports, MDD with high occupational and economic impact, affects about 4.4% of the world's people [2], and by 2030 it will become the world's second major disease [3]. In Iran, the latest national epidemiological survey indicated that the prevalence of MDD was 12.7% [4, 5].

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Islamic republic of Iran in the Middle East is one of the big countries, with a population of over 80 million, with various cultures [6] of several ethnicities, including Azeri, Kurdish, Arabs, Fars, Turkmen, Lurs and Balouch people. The variety in the cultures, lifestyles, and socioeconomic status may lead to the prevalence of depressive disorders. Also, Iran has experienced significant socioeconomic evolutions [7]. Experiencing such change may affect health, particularly mental health, and the prevalence of MDD [8].

Although a number of useful treatments are accessible, and it has progressed tremendously over the past 40 years, a considerable ratio of individuals with MDD do not react to the antidepressants, and after recovering from an acute episode, they still suffer from persistent psychological, psychosocial, and functional disorders [9, 10]. It can therefore be said that, MDD has been correlated with lower QoL [11] and leads to functional and occupational disturbance, with related societal, personal,

and economic burdens [12, 13]. Nowadays, mental health service policies have shifted from symptom-based therapy to a more comprehensive approach, which is focusing on QoL [14].

Although MDD often has the same affective and functional consequences in different societies, the factors affecting it are different in various cultures and communities. Therefore, QoL is a culturally sensitive concept, and it should not be assumed that inferences from Western researches could be generalized across to other populations [15].

To our knowledge, so far few studies have been conducted to explore the QoL of MDD patients from their perspective. Therefore, the purpose of this research was to perform a survey to recognize the Iranian patients with MDD insights about QoL by answering questions such as "How these individuals assess their QoL?", "With whom do they compare their QoL at the time of evaluation?", "Do they compare with others, or compare with their ideal situation or with their situation in the past?", and "What factors have the greatest impact on their QoL from their perspective?".

Therefore, to answer these questions it is obligatory to assess patients' inceptions of living with this disorder to evaluate the QoL of their society [16]. To identify concept of QoL in patients with MDD and according to the features of qualitative research, which makes it feasible to illustrate phenomena, comprehend the correlation between processes and phenomena, this study is a qualitative research with a qualitative content analysis approach to detect new prospect, to communicate among them [17].

The novelty of this study is its emphasis on a deep understanding of the concept of QoL from the insight of major depressed patients due to their special cultural conditions and providing a comprehensive, regular and specialized concept for use in the mental health system to improve the QoL of major depressed patients.

Methods

Study design

This qualitative study was performed with a conventional content analysis approach based on the Landman and Grenheim method [18, 19] to explore the Iranian MDD patient's attitudes and perceptions of QoL's meaning. Content analysis is a research approach that has been used progressively in health studies, including QoL [20], and conventional content analysis is generally used in which the main purpose of research is to appoint a specific phenomenon. This method is mostly used when there is little information and research on that subject [21].

Participants

Purposive sampling was used among patients with MDD and their families. The study included 12 key informants, 10 patients with MDD, and 2 family members of these patients with various demographic and clinical characteristics (e.g., age, various number of depression episodes, gender, occupation, marital status, ethnicity, and educational level). Pending the interviews with the participants, the researcher were guided to the interviews with their caregivers and their family. Totally, we had two family members (without depression) who were caregivers of these patients and were capable to entirely explain the living situations of these individuals to the interviewer and affirm or refuse the patients' declarations.

Key informants had to meet the following criteria: (1) patients with major depression diagnosed by a psychiatrist according to DSM-5 criteria and aged between 18 and 50 years, (2) experience of more than one past major depressive episodes (except for family members), (3) The first episode of depression occurred at least 3 years ago, (4) fluent in Azeri, or Farsi language, (5) who were able to communicate and express their perception and experiences, (6) were under drug treatment and at least 4 weeks have passed since the last episode of MDD and hospitalization, and were stable in the mood (a steady mood that they make them able to speak with the interviewer and explain his/her experiences). These criteria were used to warrant the participant's capability to reverberate on their depressive experiences.

Data collection

This research has lasted from June 2020 to February 2022. The head nurses introduced the patients who had been diagnosed with MDD. Participants according to the opinion of their psychiatrist were stable in terms of depressive disorder also were able to speak and share their experiences with the interviewer (first author). The head nurses also provided the researcher with information about the hospitalization file and contact details with the patient's families. The research setting included three inpatient wards of Razi Psychiatric hospital in Urmia.

An in-depth and semi-structured interview was used to explore QoL predisposing factors in patients with MDD. Twenty-two face-to-face interviews, with open-ended questions about QoL, were conducted with twelve individuals who experienced major depressive episodes or living with a patient who has MDD, and was currently hospitalized for at least 4 weeks.

All interviews were conducted in a quiet setting in different wards of Razi Psychiatric hospital. Confidentiality was guaranteed to the participants. Following informed written consent, individual interviews were conducted

face-to-face and by telephone (for probing questions and member checking). Then, interviews were began with main questions and continued by probing questions (Main question: "Can you describe a day in your life?" By continuing the interview, these questions were asked: "What makes you happy?" And, "What calms you down?"). All interviews were conducted and audio-recorded and transcribed verbatim by the first author. An interview guide was created based on literature, and initial consultation and orienting interviews with a psychologist, and a psychiatrist. Data collection lasted until data saturation was achieved. No new codes emerged in the last two interviews suggesting that data saturation had been achieved. The duration of each interview was 35 to 60 min.

Data analysis

Coding management and data analysis was done by using MAXQDA [10] software. Conventional content analysis due to the Landman and Grenheim's (2004) was used [22]. Publicly, conventional content analysis is used when the purpose of a research is to illustrate a phenomenon, and there are confined thoughts [23] or fragmented knowledge about it [24]. Moreover, the phenomenon of QoL in patients with MDD and affecting factors has vague aspects, which should be clarified through content analysis. The following steps were taken in this study.

1. Transcription of the interviews verbatim and multiple revisions to understand the concept as a whole.
2. Decomposition of text into reasonable and condensed units.
3. Conceptualization of the compressed significant units and labeling them with codes.
4. Codes categorization into the categories and subcategories, based on their differences and similarities.
5. Devising main categories and themes due to the latent content of the context.

An example of the coding process in this research is demonstrated in Table 1.

Trustworthiness/rigor

Study rigor and trustworthiness was provided based on Guba and Lincoln's (1989) criteria [25, 26]. Credibility was established by long-term engagement with data and member check. Findings were returned to the key informants to affirm the researcher's and the key informant's viewpoints. For confirmability, the internal panel expert technique was used. The research team checked out the findings after categorization by the first researcher. For categories and codes, where there was no consensus, the debate continued until the subject became consensus and obvious. For dependability, we used audit. Codes, categories, and themes were protected until the end of the study. Maximum variation sampling helped to credibility as well as transferability.

Results

Sample characteristics

The present study was performed with 12 participants. In this study, the youngest key informant was 19 years old and the oldest individual was 48 years old; the level of education varied from illiterate to bachelor's degree. Further information is presented in Table 2.

Coding structure for QoL in MDD

During the data analysis, "Agitation factors", "Destructive effects," and "Gratifications" were developed as three main themes with 13 main categories, 39 sub-categories, and 879 codes.

First theme: agitation factors

The theme of depression Agitation factors consists of four main categories including environmental agitation factors, attitudinal agitation factors, economic agitation factors, and situational agitation factors, with 8 sub-categories and 123 codes. Patients with major depression

Table 1 Coding process

Main category	Subcategories	Codes	Meaning units
Finding peace with spirituality	Peace of mind through worship	Request to God	Participant 5: "I require God to cleanse my life from pollution and immorality."
		Thanking God	Participant 8: "I thank God for giving me that motherly feeling"
	Intimacy with God	Proximity to God	Participant 6: "I want to be closer to God"
		Companionship with God	Participant 9: "Every day I talk to God"
	Religious lifestyle	Pray	Participant 8: "I pray a lot."
		Recitation and listening to the Quran	Participant 7: "I recite the Quran. I listen to the Quran."

Table 2 Key informants' demographic characteristics

Rows	Allonym	Education	Age	Occupation	Civil status
1	P*/M*-Azeri	Diploma	37	Welder	Married
2	P/M- Azeri	Under-diploma	23	Hand selling	Single
3	P/M-Kurdish	Diploma	48	Military retiree	Married
4	P/M-Fars	Bachelor	41	Military officer	Married
5	P/M-Azeri	Illiterate	29	Driver	Married
6	P/M-Fars	Elementary	32	Unemployed	Single
7	P/M-Kurdish	Under-diploma	47	Lawn-mower	Married
8	P/F-Azeri	Under-diploma	34	Housewife	Married
9	P/F-Fars	Illiterate	44	Housewife	Married
10	P/F-Azeri	Diploma	19	Unemployed	Single
11	Patient's wife-Azeri	Under-diploma	26	Housewife	Married
12	Patient's mother-Azeri	Diploma	44	Housewife	Married

P patient, *M* male, *F* female

referred to factors that lead to the occurrence or exacerbation of depression in a way that these factors negatively affect their quality of life. These patients also stated that by eliminating or reducing these agitation factors from their daily lives, they would achieve a desirable quality of life. Therefore, these factors were introduced as depression agitation factors (Table 3).

First category: environmental agitation factors

Environmental agitation factors are so prominent factors in depressive disorder. In this research, these factors include external factors that strongly influence in the depressed individual. Here, there is two subcategories: (1) daily rhythm and (2) climate changes.

Daily rhythm

Key informants said that their symptoms of depression aggravated by sunset. Therefore, low mood seen at night and by sunset in these individuals. Also, most of them experienced that the sunset is the major cause of depressive disorder.

> *P5 (male patient—29-year-old Azeri): "Two weeks ago, I was sitting in the yard, the sun was shining and I was talking to my family. I was very well, but by sunset, I became depressed."*

Climate changes

Most key informants reported that climate changes cause to the exacerbation of their low mood, and especially with the beginning of the cold season and autumn, their depression starts and gradually worsens.

> *P6 (male patient—32-year-old Fars): "A few months ago, when it was summer, I was fine, but now that it is autumn, I feel bad."*

Second category: attitudinal agitation factors

Participants noted that other individual's negative attitudes cause to an increase in symptoms of depression. So, these patients are strongly affected by attitudinal agitation factors. They corroborated the need for attention of family members to their position in the family and

Table 3 Categories and themes extracted from in-depth interviews

Themes	Categories	Subcategories
Agitation factors	Environmental agitation factors	Daily rhythm
		Climate changes
	Attitudinal agitation factors	Negative attitudes of people
		Negative self-concept
	Economic agitation factors	Financial problems
		Unemployment
	Situational agitation factors	The loss of loved ones
		Retirement crisis

society. Also, feeling defective or negative self-esteem cause to intensification of depression in them. Generally, two subcategories of this category are (1) negative attitudes of individuals, and (2) negative self-concept.

Negative attitudes of individuals

Due to these findings, we understand that MDD individuals are so impressionable. MDD patients are easily affected. Key informants were strongly influenced by other individual's attitudes and particularly their negative attitudes about their status in family or society aggravate depression in them.

> *P7 (male patient—47-year-old Kurdish): "I have been very sad and disappointed since yesterday because yesterday there was a nurse who looked at me like mad one."*

Negative self-concept

Most of the MDD patients had a lack of self-esteem, which cause to a depression feeling in them. These individuals did not see a good future for themselves and always pointed out that they do not have enough hope to live and do not have enough abilities.

> *P8 (female. patient—34-year-old Azeri): "After my sister got married and I stayed home, I thought that perhaps I have problem that I could not get married and it made me depressed."*

Third category: economic agitation factors

Economic agitation factors are very important and influential factors in the onset and aggravation of depression. Factors such as lack of money, financial issues, unemployment, and lack of a fixed occupation cause to the onset and exacerbation of depression. Two subcategories of economic agitation factors are (1) financial problems and (2) unemployment.

Financial problems

Economic and financial problems as well as not having a fixed income were among the things that, from the patients' point of view, strongly influence the onset and exacerbation of their depression. They also mentioned that the loss of financial resources and income was also effective in the occurrence of depression.

> *P4 (male. patient—41-year-old Fars): "Once I went for a walk with my friends that I did not have money to spend in my pocket, after which I got depressed for 2 weeks."*

Unemployment

These patients are very eager to have a job and state that since they lost their job they felt powerless and this factor led to the exacerbation of their depression. From the point of view of these patients, having a steady job is so important.

> *P7 (male patient—47-year-old Kurdish): "Overall, I was depressed for the two years I was out of work. Unemployment bothered me a lot and made me depressed."*

Fourth category: situational agitation factors

These patients are severely affected by the loss of loved ones and people who belong to them, such as parents, and the negative effects of this loss lead to the onset and aggravation of persistent depression symptoms. They also mentioned that they do not adapt well to the retirement crisis and they tend to continue working, and when they retire, the feeling of job loss leads to depression. This category consists of two subcategories, including (1) the loss of loved ones and (2) retirement crisis.

The loss of loved ones

Losing loved ones is a natural thing and leads to depression in all people, however, in MDD people, the process of recovery and returning to the normal state is difficult and with a lot of delay, which has negative effects in all aspects of their lives.

> *P8 (female patient—34-year-old Azeri): "My mom was very kind to me. I was depressed when she died. I was crying a lot and I was isolated. She liked me so much and she talked to me well."*

Retirement crisis

These patients believe that retirement is a difficult crisis and it is a kind of loss of social status, and they refer to it as a nightmare and point out that all their diseases start with their retirement.

> *P3 (male patient—48-year-old Kurdish): "The day I retired I had a heart attack because I felt I had lost my position in society. The feeling I had after retirement was not just about retirement day, but lasted for a long time."*

Second theme: destructive effects

The impacts of depression can go beyond negative emotions and mental health, which can have a negative impact on a variety of issues, including physical health.

In general, the results of this study show that patients with major depression do not have a normal mood and do not enjoy life, they are isolated, and their mental occupation is often the subject of death, feel worthless and devalue themselves. They constantly feel guilty and may also have anorexia and cannot sleep easily or if they sleep they do not enjoy their sleep and cannot get the necessary energy that they need to get during sleep. Finally, according to the categorization, the theme of destructive effects extracted from the five main categories, including "Aggressive behaviors and guilt follow", "Defective interaction", "Unpleasant feelings", "Physical effects of depression", and "Psychological Challenges", consisted of 21 subcategories and 414 codes (Table 4).

Aggressive behaviors and guilt follow

According to participants, uncontrolled anger and aggression are one of the common consequences of depression. This uncontrolled anger leads to multiple aggressive behaviors in these patients. When such behavior occurs, these patients often hurt those close to them, including their family and others and then suffer from widespread grief, which is very difficult for them to find peace after such behavior and leads to feelings of guilt in these people. Therefore, according to the categorization, this category is divided into two subcategories, including "Multiple conflicts" and "Feeling guilty after aggression".

> *P1 (male. patient—37-year-old Azeri): "I had many conflicts with my wife. I would go wherever she went and then I asked her, why did you go there? But I get very upset after conflicts and arguments.'*

Table 4 Categories and themes extracted from in-depth interviews

Themes	Categories	Subcategories	
Destructive effects	Aggressive behaviors and guilt follow	Multiple conflicts	Numerous conflicts with others
			Conflict with family members
		Feeling guilty after aggression	Regret after the conflict
			More anger after the conflict
	Defective interaction	Reluctance to make friends and interact	Reluctance to make friends
			Reluctance to talk
			Poor communication with others
		Decreased interaction with family members	
	Unpleasant feelings	Worry about the future	Concern about the effect of the disease on family life status
			Worrying about the future and losing belongings
			Mental conflict related to financial problems
		Agitations	
		Boredom	Being bored
			Senseless
			Sadness
		Lack of tolerance	
		Irritability	
	Physical effects of depression	Inactivity at home	
		Decreased job performance	
		Sexual problems	Premature ejaculation
			Uninterested in Sex
		Loss of appetite	
		Sleep disorders	
		Problems with personal hygiene	
		Weight loss	
		Inadequacy	
		Weakness and lethargy	
	Psychological challenges	Isolationism	
		Tendency to use tobacco, drugs and alcohol	
		Self-harm	

Defective interaction

They point out that they are poor at understanding and following the social rules of verbal and nonverbal communication in everyday situations; and do not have sufficient communication skills based on the needs of the listener or the situation and have difficulty following the rules of conversation and communication. Deficiencies in social communication lead to a decline in the individual's ability to communicate effectively, social participation, the development of social relations and academic and professional achievement. According to the categorization, the category of defective interaction is divided into two subcategories, including "Reluctance to make friends and interact" and "Decreased interaction with family members".

> *P12 (Patient's mom—44-year-old Azeri): "Most of the times she does not talk to us, and she is silent. When we call her to talk to us, she goes to her room to be alone and not to talk with us. She also has no friends."*

Unpleasant feelings

Our participants often cite "Worry about the future", "Agitations", "Boredom", "Lack of tolerance," and "Irritability" as their depressive states. Unpleasant feelings have a great effect on the quality of life of these patients. In this situation, they lose their desire to perform activities that were once enjoyable for them, they encounter problems in their relationships, and they think of suicide, intend to do so and even attempt suicide.

> *P6 (male patient—32-year-old Fars): "Depression has affected me a lot, especially since my dad died. Now I am all worried about losing my mother."*

Physical effects of depression

The effects of major depression do not end with mental health problems and can go beyond a person's emotions and affect their physical health as well. The physical effects of depression plunge the patient further into a state of depression and exacerbate its symptoms. The physical symptoms of depression stem from a direct link between the mind and the body status. While people often recognize depression with mental and mood symptoms such as sadness, grief, crying, and despair; patients with major depression complain more about their physical suffering. Therefore, not paying attention to this issue will demolish the patient physically and mentally.

Physical symptoms in patients with major depressive disorder known as the consequences of the disease include "Inactivity at home", "Decreased job performance", "Sexual problems", "Loss of Appetite", "Sleep disorders", "Problems with Personal Hygiene", "Weight loss", "Inadequacy", and "Weakness and Lethargy".

> *P5 (male patient—29-year-old Azeri): "Since I'm depressed I cannot sleep, I do not have the energy to go to the bathroom, I cannot even have sex with my wife because I ejaculated early, my wife says because you eat less, I just like to rest at home and lie down because my body is very weak."*

Psychological challenges

Study participants stated that they always have severe stress. For them, the crisis will increase with the development of symptoms, and these people will not only have to accept their illness and difficult situation, but will also have to cope with the psychological challenges they often face. Psychological challenges that major depressed patients face include "Isolationism", "Tendency to use tobacco, drugs and alcohol" and "Self-harm".

> *P3 (male patient—48-year-old Kurdish): "I became very lonely after I retired. I was not a social person like before. Loneliness made me use drugs so that I might calm down. I calmed down at first, but then I was so restless and stressed that I only thought about suicide to die and calm down. I have even committed suicide twice so far."*

Third theme: gratifications

During the data analysis, "Gratifications" was developed as the main theme with 4 main categories, including (a) "Human Dignity", (b) "Finding Peace with Spirituality", (c) "Belonging and Support", and (d) "Purposeful Activity". These categories included 10 subcategories and 581 codes. The main theme as well as categories and sub-categories derived from the interviews are presented in Table 5.

Human dignity

Codes extracted from the participant's statements, indicated that being respected and valued by others, not exposure to the stigma of the mental disorder and doing affairs independently are the concept of human dignity. Therefore, this category consists of three subcategories, including "Finding peace with respect", "Escaping the Stigma" and "Being Independent".

Finding peace with respect

According to participants, being respected improves their QoL. They believe that "respect" indicates they are

Table 5 Categories and themes extracted from in-depth interviews

Themes	Categories		Sub-categories
Gratifications	Human dignity		Finding peace with respect
			Escaping the stigma
			Being independent
	Finding peace with spirituality		Peace of mind through worship
			Intimacy with God
			Religious lifestyle
	Belonging and support	Social support	Improving social interactions
			Fulfilling the financial needs
			Receiving emotional support from family
		Belongingness	Social acceptance
			Family belonging
	Purposeful activity		Entertainment
			Employment

valuable. They want to see others regard to them. Respectful interactions boost these individuals self-esteem.

> *P5 (male patient—29-year-old Azeri): "Once we were invited to a party, there they asked me about business and I was very happy that my opinion is respected by others."*

Escaping the stigma

Individuals with MDD mention that mental health disorder's stigma correlated to mental health and the discrimination they experience can make their pain worse and make it harder to health recover. Ultimately, they prefer to escape the situations that lead to their stigma.

> *P8 (female patient—34-year-old Azeri): "2 months ago, when I was arguing with my friend, she told me that you are mentally ill and I do not want to talk to you anymore. This sentence made my mood very bad and then I decided to don't have any contact with him."*

Being independent

According to this category, participants desperately want to be allowed to do their favorites independently. Moreover, participants in this study noted that doing favorite things independently can make a big difference in their lives and relieve depression symptoms.

> *P3 (male patient—48-year-old Kurdish): "I am very interested in cleaning, especially cleaning the house, washing the car, and shopping. But since I am depressed my family members do not let me to do my favorites. They think that I can't do anything independently. I don't want anyone to help me with my affairs."*

Finding peace with spirituality

Religion, lifestyle, and cultural conditions of any society are very influential in the QoL. According to most participants, spirituality is the most important and influential factor in finding peace and QoL. According to the codes extracted from the participant's statements, the category was divided into three main subcategories, including "Peace of mind through worship", "Intimacy with God", and "Religious lifestyle".

Peace of mind through worship

Regarding the sub-category of peace of mind with worship, the participants pointed out that they feel very good by performing worship, and requesting from God. And some participants even pointed out that worship is the only way to find peace during their illness.

> *P5 (male patient—29-year-old Azeri): "I was very frustrated and restless this morning. But I tried to talk to God. I asked him to help me. After talking to God, I felt calm."*

Intimacy with God

Most of participants pointed out that they love God very much and have a good relationship with him. Most of them believe that the only way to get rid of depression is to get closer to God. They said that when they communicate with God, they find peace.

> *P9 (female patient—44-year-old Fars): "I am not intimate with anyone, but I am very comfortable and intimate with God. A few days ago, I could say my wishes to God that I could not tell others, and I calmed down."*

Religious lifestyle

The results of this study show that lifestyle corrections can significantly improve depression symptoms. From the perspective of participants, combination of religious manners and beliefs in the psychological treatments of depression is associated with positive therapeutic results.

> *P7 (mal. patient—47-year-old Kurdish): "When I get more depressed, I go to holy places and read religious books, in that case I feel better."*

Belonging and support

The search for a sense of belonging and social support is a variable that has been highly regarded by patients with MDD. Participants emphasized on the effects of the loss of social attachment, on their sense of loneliness, and on their social withdrawal. They are looking for sources of support so that by connecting and associating with them, they can cultivate the feeling that there is someone in the universe or a place that puts them under its umbrella of protection. Therefore, this category consists of two main subcategories of "Social Support" and "Belongingness".

Social support

According to this study, social support alludes to the financial and psychological resources presented by a social net to aid people survive from depression. This category consists of three sub-categories of "Improving Social Interactions", "Fulfilling the Financial Needs", and "Receiving Emotional Support from Family".

Improving social interactions

Patients with major depression often experience a sense of loss of social support because they have many problems with social interactions, and sometimes they even lose their social relationships. They want to create respectful and reciprocal relationships that support and empower their relations with families. Our participants believe that poor social support, especially poor interaction with family is associated with their depression, loneliness, and suicide.

> *P2 (male patient—23-year-old Azeri): "Sometimes my friends or my family call me and talk with me about various issues, these conversations and meetings make me feel good."*

Fulfilling the financial needs

These patients need to fulfill their financial needs from society or their family. In general, they believe that by meeting their financial needs, they can prevent the development of depressive symptoms and enjoy their life.

> *P7 (male patient—47-year-old Kurdish): "In the past, I used to work, I was a shopkeeper, I had an income for myself, so then with my income I could provide everything I needed and that made me feel satisfied."*

Receiving emotional support from family

From the insight of most key informants in this research, there is nothing like family. They believe that their family is closest allies, their greatest sources of love and support. They expect their family to compromise with them, pay attention to them, and finally empathy with them.

> *P10 (female patient—19-year-old Azeri):"Once, when I was very depressed and crying, my father hugged me and told me that he loved me very much. After that, I felt very calm."*

Belongingness

Depressed individuals want to belong to something beyond themselves. They want to be accepted in society, return to their families and live with them and gain identity by being with their family. This excessive interest in the family by these people can help them to find peace and ultimately improve their QoL by returning them to their families and being accepted from the family. According to the extracted codes from the participant's statements, this category consists of two sub-categories, including "Social acceptance" and "Family belonging".

Social acceptance

Social acceptance from the perspective of this study's participants means that they want others to share them in social relations. From their point of view, social acceptance happens when, in addition to giving MDD patients the opportunity to be in the community, they are also given the opportunity for social activity.

> *P4 (male patient—41-year-old-Fars): "I used to be in my friends' group, we had many programs with each other, we went out, we had fun, for example, we went to the cinema and I was very well, but after my illness, my friends did not want me to be in their group."*

Family belonging

They need to feel accepted and loved by their families. According to them, most of MDD individual's self-esteem exists when they have a place in the community and family and belong to a certain group. Then they can fight the symptoms of depression.

P1 (male patient—37-year-old Azeri): "I just want one thing; my family…, I want them to come back to me, especially my wife. I was fine when I was with them."

Purposeful activity

It is very important in the depressed patients' lives to be active and involved in the community. Active participation in leisure and social activities, and role substitution when situations need, are necessary to the QoL of depressed individuals. There is a lack of concentration on desirable activities of these individuals; however, activities that are desirable are also substantial potential purposes to support interpositions that get person and societal targets of reducing disease and improving QoL using MDD individual's own motivation. According to the participants in this study, this category consists of three subcategories of "Entertainment", "Employment", and "Hatred of boring and repetitive life".

Entertainment

Entertainment simply became a favorite way for depressed patients to pass the time. They like to listen to music, play games with mobile phones, read storybooks, watch TV, go shopping, and play with animals. Entertainment is a very important element of these individual's life, and it can lead to peace of mind in them.

P12 (patient's mom—44-year-old-Azeri): "My daughter's only hobby is reading stories and watching TV. Also, she likes music. She is calm when she done these."

Employment

From the participant's point of view, employment is important for creating a better life and a better sense of themselves. They believe that employment is a way to help people and they feel better about themselves when they help others. Also, from their point of view, employment is the only way to earn money. They believe that they do not have a valuable position in society without having a job. However, most employers dismiss these individuals because of their depression or do not employ them in any job.

P7 (male patient—47-year-old Kurdish): "since I was unemployed, I was not valued in society. Unemployment makes me depressed. Whereas in the past when I was working I had a high mood".

Discussion

The purpose of this research was to understand the meaning of QoL, through the insight of Iranian patients with MDD via using a qualitative content analysis approach. Although several quantitative studies have examined the QoL of patients with major depression, few qualitative studies have identified the perceived meaning of QoL through the insight of patients with major depression. One of the salient features of the present study is having a naturalistic perspective, away from prejudice and free from the limitations of the positivist paradigm for gathering information based on patient's views and feelings and placing the researcher as part of the research process in a deep and comprehensive encounter with the subject.

Themes extracted from the analysis of interviews with participants in this study included "agitation factors", "Destructive effects", and "Gratifications".

Agitation factors

In this study, agitation factors had a remarkable implication on the exacerbation and onset of depression. Patients with MDD and their families stated that environmental agitation factors, attitudinal agitation factors, economic agitation factors and situational agitation factors affect the lives of these individuals and can considerably intensify their depression. These factors that have been mentioned above, with the worsening of depression symptoms, gradually lead to the loss of these people's interest in continuing their lives and the continuous deprivation of their sense of satisfaction and enjoyment of life. However, by reducing or omitting these factors, it is possible to improve their QOL.

In relation to the factors that facilitate or predict depression, many consistent and inconsistent studies have been conducted with the findings of this research. One such study is a study by Patten et al. in Canada. The study found that the burden of major depression was higher in the cold seasons of the year [27].

Other relevant studies include a study by Kawakami and Haratani. They surveyed the interrelation between depressive symptoms and lifestyle, including insomnia, irregular meals, low fluid intake, early depressive symptoms, poor health, workplace stress, lack of rest and rest times, and inadequate income were cited as predictors of major depression. Also, in that study, it was reported that job stress due to inappropriate jobs and human relationships is associated with MDD [28].

According to attitudinal factors, a research has been done by Zhang et al., which shows that the stigma of mental illness and the negative attitude towards such patients lead to the aggravation of depression. Also, these patients have much lower social acceptance than other people. On the other hand, the family of these people often consider them as a stigma for themselves [29].

Friedman et al. report that it is acceptable and understandable reaction to have mournfulness following the

loss of a loved one. Nevertheless, in some individuals, it can have deeper consequences and cause different signs of MDD. MDD people experience a major crisis when they lose loved ones and become pessimistic about life and lose their self-esteem [30].

However, different studies have stated different factors in the occurrence and exacerbation of this disorder. For example, Smiths et al. cited symptoms of anxiety, dysfunction, chronic illness, low control of life, low education, and lack of a partner as factors that facilitate depression [31]. While in this study, attitudinal and economic factors were more important for participants in exacerbating depression and declining quality of life. Because in Iranian society, these people do not have adequate financial support and, in addition, there is no proper attitude towards these people. While Christopher et al. reported that life changes, loss of interpersonal communication, and transitions are important factors in causing and exacerbating depression [32].

Destructive effects

Participants in this study noted the adverse outcomes and complications of major depressive disorder that are constantly evolving and affecting all aspects of their lives. By examining and comparing the categories and subcategories of the theme of destructive effects with other studies, it is clear that the achievements of this study in this theme are consistent with most studies.

In general, according to studies, there is a direct correlation between poor health and MDD. This direct relationship leads to physical, social and occupational dysfunctions [33]. In addition to the functional disorders mentioned, patients with major depression also face widespread economic problems [34]. Various studies show that in addition to the above issues, major depressive disorder has other consequences such as low mood, sadness, decision disorder, lack of energy, extreme fatigue, irritability, change in mental image, self-reduction of activities, and loss of interest in sex that lead to a significant decline in quality of life [35]. On the other hand, impulsive and aggressive behaviors, self-harm, and others as well as suicidal behaviors are abundant in individuals with MDD [36]. The presence of symptoms of MDD leads to a lack of proper interactions and this group of patients show poor communication with others, and especially with family members [37]. And ultimately leads to social isolation and loneliness in patients with major depression [38]. Social isolation is defined as the lack of contact with others, which is a key indicator of declining QoL [39].

Gratifications

Due to the extraction of the theme of gratifications from the present study, by knowing the concept of gratifications and its correct application in life, a satisfying life can be created for individuals with MDD. Patients with major depression consider the development of such conditions in their lives as criteria for improving their quality of life.

Compared to other studies, there are some similarities with the type of categories extracted by this study. However, in various studies, these components have not been studied comprehensively and in more detail.

The first main category of this theme is "Human Dignity'. From the participant's point of view, being respected and not being stigmatized is very effective in their gratification. While disrespecting or stigmatizing them cause's low self-esteem and exacerbates depression symptoms in them. Studies indicated that one of the worst consequences of the stigma of mental disorders is that it causes a remarkable decrease in self-esteem [40]. In addition to lowering self-esteem, there is evidence that stigmatization can negatively affect their mental health, and affecting their mood [41]. As reported in other research, individuals with mental disorders want to be respected like other people [42–46].

"Finding Peace with Spirituality" as the second category of this theme is a significant and appropriate manner to increase the gratification of patients with major depression. Spirituality and religion have been studied as potential factors in improving suicidal behaviors and major depressive symptoms [47, 48]. Individuals who attend spirituality and religious services have been indicated to have a diminished risk of expanding MDD symptoms [49, 50] and have a swift time to recovery [51]. A survey demonstrated that 84% of researches indicated lower prevalence of suicidal behavior among more religious individuals [52]. However, some researches indicating increased odds of mental disorders with being more religious and spirituality [53–55] and some indicating no relationship [56]. Doolittle et al. In a research point out that understanding a depressed patient's spiritual life, and its effect on mental health, gives health care providers insight into an important coping mechanism. They also found that higher spirituality beliefs, like belief in prayer, associated with fewer depressive symptoms [57]. The results of another study by Toghyani, indicated that the lifestyle related to Islam with psycho educational intermediation can be as impressive as behavioral activation cure in mitigating the MDD symptoms [58]. The existing contradiction can be explained by the fact that studies have been conducted in different cultures and religions, which has led to different views on the impact of religion on the QoL.

The third main category of this theme is "Belonging and Support". "Social Support" as a main sub-category, shows the need to pay attention to meeting the financial

and communication needs of these individuals. These patients often do not have any financial resources due to their medical condition. They also have very poor social and family relationships. While, we know financial and communication needs are very influential in life. Studies show that, performing communications with friends, family or others is essential to a happy and meaningful life. Close relationships benefit the person via improved coping mechanisms, better health outcomes, and gratifications [59]. "Belongingness" is the other main sub-category extracted from this category. We know that one of the basic human needs in Maslow's hierarchy of needs is belongingness [60]. It has been stated that individuals are basically motivated by a need to belong [61], and that belonging is the missing conceptual link in perception mental disorder [62]. In a research by Choenarom et al., it was found that feelings of low belonging have significant direct impacts on the severity of depression [63]. According to the participants of this study, family has a very significant role in the QoL of these people and creating a sense of family belonging is one of the most remarkable factors in improving the QoL in MDD individuals. While in other studies, including the study of Yang et al., only antidepressant drug treatment has been stated as an essential factor in ameliorating the QoL of these individuals [64] and such factors have been less addressed.

Finally, the last main category extracted from this study is "Purposeful Activity". The majority of depressed patients in the study noted that having hobbies such as keeping and have fun with pets like dogs and canaries, shopping, listening to music, watching TV, etc. can lead to a happy life for them as long as these activities are not repetitive. They also tend to be employed in a steady job to spend part of their daily lives effectively. However, emotional symptoms include low mood with low self-esteem and loss of interest in activities that other individuals find pleasurable, makes these individuals do not have a special activity to create fun for themselves, but we need to pay attention to the specific activities that make these people happy. For instance, recent researches show the constructiveness of the video games in the gratifications of these people. Video games such as Puzzle may be more remunerating and less disappointing, and therefore, it is more suitable for the entertainment of these people, and as a result, it improves the mood [65]. Another study by Ghanbari et al. found that engaging in purposeful activities such as gardening had a significant effect on reducing depression [66]. But, to our knowledge, there are few studies on the need to address hobbies and interesting activities of patients with major depression.

The novelty of this study leads to the creation of a deep and realistic attitude in national and global nurses towards the QoL of majorly depressed patients in order to remove the aggravating factors of the disorder and create a pleasant life based on the adequate and specialized understanding of the consequences of this disorder according to the preferences of patients and provide a suitable quality of life for these patients.

Relevance for clinical practice

Caregivers and especially nurses must have more consideration in those factors that create satisfaction and peace of mind from the perspective of MDD patients, since understanding them can remarkably control the MDD's symptoms and increase QoL of these individuals. Also, based on the findings of this study, we can prepare the principles and policies of nursing care for hospitalized patients with major depressive disorder so that specialized nursing care can be provided to these patients in order to ameliorate their QoL.

Limitations

Poor cooperation of individuals with MDD and their lack of trust were existing problems in this research. For solving this issue, we conducted several interviews with each key informant to obtain their trust.

Conclusions

In response to the research question and from the patients' point of view, factors such as environmental, attitudinal, economic, and situational agitation factors lead to exacerbation of depressive symptoms, and as depression worsens, these people experience aggressive behaviors, defective interactions, unpleasant feelings, and numerous physical and psychological problems, all of which cause to a decrement in the QoL of these patients. Novelty of this study indicates us that, by eliminating the mentioned factors and creating gratifications in the lives of these people by creating human dignity, paying attention to the role of spirituality in life, creating a sense of belonging and support for these people, and finally establishing a purposeful life, the quality of life of major depressed patients can be improved.

Abbreviations

QoL	Quality of life
MDD	Major depressive disorder
WHO	World Health Organization

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Authors' contributions
M Ra conceived of the idea and research questions and assisted with analyses, aided in the interpretation of the results, and assisted in writing the results section. M R helped to conceive the research questions, conducted interviews with the participants, conducted the analyses, and prepared the first complete draft of the manuscript. M H M helped to conceive the research questions, assisted with analyses, aided in the interpretation of the results, and contributed to the writing of the manuscript. All authors approved the final article.

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Availability of data and materials
All our study-related information is stored in secure folders with limited access. Electronic data files are stored on a file system with access restricted to designated researchers and data managers. The dataset is available from the corresponding author at Urmia University of Medical Sciences.

Declarations

Ethics approval and consent to participate
This article is taken from the dissertation of the master's degree course in approved and defended psychiatry at the Faculty of Nursing, Urmia University of Medical Sciences. In this study, the researcher started collecting data after receiving the Code of Ethics (IR.UMSU.REC.1398.214) from the Iran National Committee for Ethics in Biomedical Research. And after received a letter of introduction through the research directorate at the Urmia University of Medical Sciences along with other necessary permits issued by the dean's office and the offices of the nursing staff, the researcher entered the location of the research to familiarize the participants with the aim and process of the research and to obtain their informed verbal and written consent to participation in the research by giving interviews and being observed. Measures were put in place to ensure that the identity of each participant remained confidential. The researcher provided the participants with contact information and was ready at all times to answer their queries about the research.

Consent for publication
Informed consent was obtained from each participant before the study started.

Competing interests
The authors declare that they have no competing interests.

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