



## Original Article

# Hopelessness and suicide ideation in ostomy patients: a mixed method study

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### ARTICLE INFO

#### Article history:

Received 17 April 2020

Accepted 2 May 2020

Available online 2 June 2020

#### Keywords:

Mental health  
Suicidal ideation  
Hope  
Ostomy

### ABSTRACT

**Introduction:** It is important to characterize patients' mental health problems since the association between mental adjustment and life expectancy has stabilized in these patients. So, the present study was conducted to determine the prevalence of suicidal ideation and hopelessness in patients with ostomy.

**Method:** A mixed method strategy (cross-sectional and content qualitative analysis) was done in Educational Hospitals in Tehran in 2019. Beck Suicide Ideation (19 item) and Beck Hopelessness (20 item) self-assessment questionnaires and unstructured interview were used for data collection. Data were expressed as frequency and percentage and independent t-test. Analysis was done in the Statistical Package for the Social Sciences (SPSS) 16.0 and conventional content analysis.

**Results:** Three months after surgery, 3% had low suicidal ideation and 97% had high risk suicidal ideation. This rate 6 months after surgery was 16% with low suicidal thoughts and 84% with high risk suicidal thoughts. In the case of hopelessness 3 months after the surgery, 20% had mild hopelessness, 79% had moderate hopelessness, and 1% had severe hopelessness. These figures 6 months after surgery were 11% hopeless, 31% mildly disappointed, 58% moderately disappointed. The results of the qualitative study resulted in the extraction of three main categories that included enduring the initial suffering, social isolation, and lag of ostomy admission.

**Conclusion:** The relative improvement in suicidal ideation and hopelessness in the present study showed that the mental status of ostomy patients requires more careful attention.

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<https://doi.org/10.1016/j.jcol.2020.05.008>

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## Desesperança e ideação suicida em pacientes ostomizados: um estudo de método misto

R E S U M O

*Palavras-chave:*  
Saúde mental  
Ideação suicida  
Esperança  
Ostomia

**Introdução:** É importante caracterizar os problemas de saúde mental dos pacientes, considerando-se a associação entre estabilidade mental e expectativa de vida. O presente estudo foi realizado para determinar a prevalência de ideação suicida e desesperança em pacientes ostomizados.

**Métodos:** Uma estratégia de método misto (análise transversal e de conteúdo qualitativo) foi realizada em hospitais educacionais em Teerã em 2019. Foram utilizados os questionários de auto-avaliação de Beck sobre Ideação Suicida (19 itens) e Desesperança (20 itens); além disso, os participantes foram entrevistados de forma não estruturada para a coleta de dados. Os dados foram expressos em frequência e porcentagem e o teste t para amostras independentes foi aplicado. O software SPSS v. 16.0 foi utilizado para análise estatística e uma análise de conteúdo convencional foi realizada.

**Resultados:** Três meses após a cirurgia, 3% dos entrevistados apresentaram baixa ideação suicida e 97%, ideação suicida de alto risco. Seis meses após a cirurgia, 16% apresentaram poucos pensamentos suicidas e 84%, pensamentos suicidas de alto risco. Quanto à desesperança, três meses após a cirurgia, 20% apresentaram desesperança leve, 79%, moderada e 1%, grave. Seis meses após a cirurgia, 11% se declararam desesperançosos, 31%, levemente decepcionados e 58%, moderadamente decepcionados. Os resultados da avaliação qualitativa apontaram três categorias principais: suportar o sofrimento inicial, isolamento social e atraso na admissão de ostomia.

**Conclusão:** A melhora relativa da ideação suicida e da desesperança no presente estudo indica que estado mental dos pacientes ostomizados requer uma atenção mais cuidadosa.

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## Introduction

The temporary or permanent ostomy is usually created due to gastrointestinal or urogenital system diseases.<sup>1</sup>

Ostomy patients have to suffer the difficult treatments including surgery, radiation therapy, and chemotherapy,<sup>2-4</sup> as well as the significant challenge of acquiring the skills to live with the changed body and experience of a psychosocial transition<sup>5</sup> that interferes with daily living and reduces their quality of life.<sup>2-4</sup>

Various studies showed the psychosocial complications of individuals with stomas and their adjustment. Psychosocial problems identified in these studies were low body image perception and self-respect, depression and anxiety, influenced coping, and less psychosocial adaptation.<sup>6</sup>

This situation leads to disordered compatibility and adjustment of the patient with the future problems.<sup>7</sup> Some studies conducted on ostomy patients showed their adaptability is low. One study in China reported that 96.9% of ostomy patients had medium to low compatibility levels.<sup>8</sup>

It is important to characterize patients' mental health problems since the association between mental adjustment and life expectancy has stabilized in these patients. Unfortunately, 25% of people who undergo colostomy experience moderate anxiety or depression during the first ten weeks after surgery and it are these patients who tend to die in the early years after surgery. This statistic is significant when compared to the death rate of 13% of people with mild anxiety or

depression during the same period (this statistic is particularly high in people with cancer due to other diseases).<sup>9</sup>

The aim of nurses is to progress successful adaptability for a patient. The nursing process is searching for the recognition, interpretation, and reaction to adaptability processes.<sup>10</sup> Therefore, the nurse should first look for problems such as suicidal ideation and hopelessness in these patients so that they can take the necessary steps to speed up patient adjustment and prevent complications of these disorders. So, the present study was conducted to determine the prevalence of suicidal ideation and hopelessness in patients with ostomy.

## Material and methods

This study was conducted by using a mixed-methods approach, which consisted of a combination of qualitative and quantitative research phases. The first phase employed a cross-sectional study design, which was followed by a qualitative content analysis.

During the initial quantitative phase, 100 patients with ostomy (colostomy, ileostomy and urostomy) who referred to teaching hospitals of Tehran were selected through convenience sampling.

Tehran as a center with a large number of hospitals and a large number of patients with ostomy surgery as well as referrals from around the country is a good option to diagnose and compare problems such as suicidal ideation and hopelessness at a wider level in this group of patients.

Hospitals such as Shariati, Imam Khomeini, Shohada Tajrish, Firoozgar, Hazrat Rasoul, affiliated to Tehran University of Medical Sciences (Tehran, Iran and Shahid Beheshti Medical University) were considered as the sample collection sites.

Inclusion criteria included patients with gastrointestinal or urinary permanent ostomy or both who had undergone ostomy surgery for at least 6 months and were willing to participate in the study.

Exclusion criteria included: inability to answer questions due to inappropriate physical and psychological condition of the patient, history of mental illness prior to ostomy surgery.

Quantitative data were collected using two tools of suicidal ideation and hopelessness. Beck Suicide Ideation Questionnaire is a 19 item self-assessment tool and is scored on a three-point scale from zero to two. The overall score is calculated based on the sum of scores ranging from 0 to 38; 0–3 no suicidal thoughts, 4–11 low suicidal thoughts, 12–38 high risk suicidal thoughts. Reliability of Beck's Suicidal Thought Scale with test–retest was 0.76 and its validity was calculated using Cronbach's alpha equal to 0.95.

Beck Hopelessness Questionnaire is a 20 item self-assessment tool based on answers of true or false. This scale measures the extent of negative attitudes toward the present and future and ranges from 0 to 20. Increasing score is a sign of despair, with a score of 0–3 indicating not experiencing hopelessness or the least hopeless, a score of 4–8 with mild hopelessness, and a score of 9–14 indicating moderate hopelessness, and a score of more than 14 indicates severe hopelessness. The validity and reliability of this questionnaire was 0.70 and 0.90.

Data were expressed as frequency and percentage and independent t-test. Analysis was done in the Statistical Package for the Social Sciences (SPSS) 16.0.

During the subsequent qualitative phase, a purposive sample was used. Sampling continued until data saturation. Finally, 35 patients were interviewed.

An unstructured interview consisting of two main questions was used to collect the data. Do you think about suicide? Please explain more. Are you hopeful about the future? Please explain more.

Questions were also used to clarify participants' answers. For example: Can you explain more, what do you mean?

The analysis was performed in accordance with traditional content analysis. The interviews were typed and then their semantic units were extracted after careful study. Then appropriate codes were selected for each semantic unit. Subsequently, classes were extracted based on the similarity and differences of the codes.<sup>11</sup>

To check the credibility of the data, the translated pairs of interviews were provided to the participants. In addition, foreign observer fluent in qualitative research who had access to copies of the interviews was used for the dependability and conformability of the research. For the transferability of the findings, the details of the research were provided to the reader of the article.

### Ethical considerations

This study was approved by Dezfoul University of Medical Sciences (IR.DUMS.REC.1398.023).

## Results

Fifty-five people participants were female and 45 were male. Sixty percent of participants were married, 20% were single, 15% divorced, and 5% were widowed. Colostomy was the most common surgical procedure (41%). This was followed by ileostomy (38%) and urostomy (16%) and a combination of ostomies (5%). People had ostomy due to cancer (35%) and benign problems (65%). In terms of adjuvant therapies patients underwent chemotherapy (10%); radiotherapy (10%), combination of chemotherapy and radiotherapy (25%), and individuals without any of these treatments was (55%). Mean age with SD was  $58.16 \pm 14.64$ .

Tables of suicidal ideation and hopelessness in patients 3 and 6 months after surgery are shown in [Tables 1 and 2](#).

In this study, the only factor that was significantly associated with hopelessness and suicidal ideation was type of ostomy ( $p$ -value = 0.000).

The results of the qualitative part of the study resulted in the extraction of three main categories including enduring the initial suffering, social isolation, and lag in accepting ostomy.

### Enduring the initial suffering

This category indicates that the postoperative stage is the most critical stage for patients with ostomy and presents challenges for them. This category comprises two categories of initial exposure to discomfort and impairment in physical well-being, indicating that, in addition to the patient's psychological involvement after exposure to ostomy, he or she also has physical problems.

The 60 year-old male participant with permanent colostomy says: "When the surgeon in the operating room decides to perform an ostomy, it is a shock. The doctor told me the bag was not needed, but then it was. After the surgery I wanted to kill myself".

The participant, a 48 year-old woman with permanent colostomy because of a colorectal surgery, said: "I couldn't sleep because my anus was closed. I used painkillers but the effect was temporary, I had to stay home. I couldn't sleep well, I was very disappointed, and my mood was not good at all".

### Social isolation

With the onset of ostomy performance, patients realize that they have other problems besides suffering the initial pain. Avoidance of others due to their inability to control unpleasant side effects and perceived rejection are factors that indicate that patients face social isolation

A 69 year-old male participant with permanent urostomy describes his experience as: "The bad smell makes you feel isolated. You try not to be with others. It was like I was trying to be farther away. It just makes you feel tired and you lose hope in the world". Another participant, a 40 year-old woman with permanent ileostomy, says: "I was going to the pool. The officer in charge of the pool saw my ostomy belt. She said, take off your swimsuit. I showed my ostomy. She asked, it's not contagious? I felt bad. I didn't go to that pool anymore.

**Table 1 – Suicide ideation scores 3 and 6 months after surgery.**

Suicidal ideation	3 months		6 months	
	Frequency	Percentage	Frequency	Percentage
No thoughts of suicide (0–3)	0	0	0	0
Low suicidal thoughts (4–11)	3	3	16	16
High suicidal thoughts (12–38)	97	97	84	84

**Table 2 – Hopelessness scores 3 and 6 months after surgery.**

Hopelessness	3 months		6 months	
	Frequency	Percentage	Frequency	Percentage
No hopelessness (0–3)	0	0	11	11
Mild hopelessness (4–8)	20	20	31	31
Moderate hopelessness (9–14)	79	79	58	58
Severe hopelessness (>14)	1	1	0	0

These things make you feel like it would be better for you to die”.

### Lag of ostomy acceptance

After experiencing the initial suffering and facing the problem of social isolation, participants conclude that they must accept an ostomy in order to get out of the situation. But this path has been challenging and time consuming for patients. Features of this delay are difficult self-persuasion for acceptance, delay in resorting to religious beliefs, and postponement in acceptance of body image and gaining hope.

A 70 year-old man with permanent colostomy said: “Until recently I was angry with God. I was disappointed because I was a healthy person but had to undergo ostomy. But I sometimes think and tell myself thank God I’m finally on my own, I can take care of myself”. Also accepting ostomy as part of one’s body is also the experience of a 56 year-old man with a permanent urostomy to improve body image: “Sometimes I think of suicide but whenever I think that ostomy is also part of my body, I feel a little better”.

A 55 year-old man with a permanent ileostomy says: “When you get sick, life becomes meaningless for you. But when one looks around, you look at your kids’ age and you say, If I could get these kids to twenty-five, this gives me hope. Mostly because of my kids I agreed to live with these conditions. However, I still get frustrated sometimes”.

## Discussion

The results of the study showed that suicidal ideation and hopelessness decreased at 6 months after surgery compared to the first 3 months after surgery.

Chronic illness itself can be a source of stress because of its effects on a person’s life that disturbs it.

Chronic diseases cause functional disorders and impairment of ability in patients. Deprivation of special abilities, feelings of inefficiency and inability lead to frustration and depression in these individuals, which in turn create the idea of suicide to end the suffering that they and their families suffer.<sup>12</sup>

Patients’ quality of life in the first months after surgery is lower than 6 months after surgery. This indicates that adaptation and acceptance require interdisciplinary care, and include attention to psychological aspects, stoma care and collection bag, to prevent complications and provide support for coping with stoma.<sup>13</sup>

Postoperative period up to 6 months and that the source of this pain is both physical and social and spiritual.

Patients showed their initial assessment of ostomy, understanding it as a threat and a stressful event. And so reactions such as shock and sadness are also a consequence of this initial assessment.

Factors affecting the patient’s physical well-being include pain and fatigue. The most important factors mentioned by patients in forming this experience are chemotherapy and excessive osteomyelitis. The results of other studies have shown that pain<sup>14</sup> and the consequences of chemotherapy as the first factor<sup>15</sup> and water and electrolyte excretion<sup>16</sup> and vitamin B12 depletion are also known as other contributing factors to fatigue.<sup>17</sup> What the nurse should keep in mind is that psychological reactions to the onset of the disease are somewhat normal, but if continued, can prevent patients from returning to normal life.<sup>18</sup> Careful consideration of the factors contributing to their physical well-being after surgery and possible adjuvant therapies and trying to provide patient comfort, can be an important step in helping patients cope more easily with post-treatment complications and improve their mental status and reduce complications such as hopelessness and suicidal thoughts.

The social consequence of ostomy, called isolation, has sometimes frustrated patients to the point of suicide. Chronic diseases are associated with social consequences and social isolation.<sup>19</sup> Salter (1992) says that although patients may feel they have accepted ostomy themselves, they may feel that the community has rejected their ostomy and that these patients are different from others.<sup>20</sup> Some factors include feelings of insecurity in the control of complications such as leakage and odor in social situations,<sup>21</sup> marital problems,<sup>22,23</sup> and family relationships prior to ostomy,<sup>24</sup> can affect the social isolation of these patients.

Delay in ostomy acceptance is another experience of patients with suicidal thoughts and despair. People entering

this stage are affected by physical symptoms such as progression of the disease, psychosocial complications and problems.<sup>25</sup> The importance of acceptance in this dimension is that patients who accept their ostomy are more likely to self-care and improve social interactions.<sup>26</sup> Low energy level after surgery,<sup>27</sup> self-care ability level,<sup>28</sup> lack of confidence in the client due to lack of proper postoperative education and care,<sup>29</sup> and impaired body image,<sup>30</sup> can lead to delays in acceptance of ostomy.

Long-term support and counseling, establishing ostomy support groups, a home visit program to ensure continued ostomy care, and enhancing long-term patient compliance are strategies to help accelerate adaptation in these patients.<sup>31</sup>

Patients with colostomy achieved the highest scores in terms of hopelessness and suicidal ideation, perhaps due to the unpleasant smell of feces. Evidence suggests that age, gender, financial status, occupation, insurance, access to an ostomy nurse, membership in an ostomy community and receiving ostomy care training and meeting with ostomy patients are factors that contribute to ostomy adaptation.<sup>32,33</sup> By educating how to follow a special diet to prevent unpleasant odors, clean and wash the ostomy bag and choosing suitable ostomy care devices we can help these patients.

Despite the improvement in suicidal ideation and hopelessness in patients with ostomy in the present study, this improvement was partial and did not fully occur, this suggests that adjustment in these patients may take longer than 6 months, and therefore screening for psychological problems and follow-up over time require careful consideration. Non-generalizability of the results of the qualitative part of the study to other communities is one of the limitations of the study. Failure to evaluate patients with temporary ostomy in the present study is another limitation. It is suggested that a similar study be performed with more patients and the inclusion of patients with temporary ostomy in the study.

## Conflicts of interest

The author declares no conflicts of interest.

## Acknowledgements

The author would like to thank all participants in this research and Dezful University of Medical Sciences for financial supporting.

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