

# Quality of Life, Anxiety and Depression among Clients with Ostomy Attending Selected Stoma Clinics

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## ABSTRACT

**Background:** Ostomy is a part of treatment among patients which has detrimental effects in patient's life. The main aim is to identify the quality of life, anxiety and Depression in clients with an ostomy.

**Methods:** Descriptive exploratory study design was used. Total of 116 clients with ostomy, aged 18 years and above were selected from stoma clinics. The modified version of City of Hope and Beckman Research Institute, Quality of Life Questionnaire for Patient with Ostomy and Hospital Anxiety and Depression Scale was adopted for data collection using an interview technique.

**Results:** The overall mean  $\pm$  S.D quality of life score was  $5.89 \pm 1.34$ . Majority (59.5%) of respondents possessed low Quality of life. Among the quality of life domains, the least and most affected domains were physical ( $5.96 \pm 1.52$ ) and social ( $4.71 \pm 1.44$ ) respectively. Duration of having an ostomy ( $p < 0.001$ ), problem in clothing ( $p < 0.002$ ) and change in clothing style ( $p = 0.002$ ) were significantly associated with the level of quality of life. Almost two-thirds of the respondents were in the borderline and abnormal level of anxiety and depression. The level of anxiety has significant association with suicidal consideration/attempt ( $p = .04$ ).

**Conclusion:** Presence of ostomy affects patient's quality of life by increasing financial burden, adjustment difficulties, sexual and psychological problems (anxiety, depression, suicidal consideration). Sexual and psychological counselling, ostomy support groups and free health services to ostomates may improve their quality of life.

**Keywords:** Anxiety; depression; ostomy; quality of life

## INTRODUCTION

Cancer has many detrimental effects on the patient's life. In addition, most colorectal and urinary cancer survivors have to deal with an ostomy as a part of their treatment.<sup>1</sup> Stoma brings a significant change in physical appearance, and bodily function and these inevitable changes lead to disordered bodily function and disruption of the number of aspects of the patient's private lives resulting in many Quality of life (QoL) issues.<sup>2</sup> Ostomy clients experience difficulties with stoma functions, work, social situations, sexuality, body image issues, and psychological breakdown and concerns such as suicidal ideation/attempt, depression, social isolation.<sup>3,4</sup>

Complications following stoma formation are

unfortunately common and have significant negative impacts in QoL.<sup>5-7</sup> Incidence of colorectal and urinary bladder cancer in Nepal is increasing.<sup>8</sup> Due to low socioeconomic status, limited availability of ostomy appliances, and lack of awareness regarding professional stoma care services, most patients with ostomy face many challenges.

## METHODS

The descriptive exploratory study design was used to identify the QoL, anxiety and depression in clients with an ostomy. The study site was stoma clinic of B.P. Koirala Memorial Cancer Hospital (BPKMCH) and Friends of Ostomates Worldwide-Nepal (FOW-Nepal). There are approximately 1000 registered ostomy clients in

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the stoma clinic of BPKMCH. Stoma clinic runs once a week, and around 30-40 ostomy clients from various parts of the country attend the clinic. FOW-Nepal provides quality services for patients with ostomy where approximately 150 ostomy clients are registered, and it runs once a month. Ethical approval for conducting study was obtained from Institutional Review Board (IRB) of National Academy of Medical Sciences, Bir Hospital (reference no.725) and Institutional Review Board (IRB) of BPKMCH (reference no. 724/076/77). Verbal permission was obtained from the president of FOW-Nepal and BPKMCH for data collection.

The clients aged 18 years and above, with an ostomy attending BPKMCH and FOW-Nepal, who had completed at least 2 months' duration after ostomy surgery, and willing to participate were enrolled in the study using Non-probability consecutive sampling technique. The sample size was calculated by using the formula  $(n) = \frac{d^2}{p(1-p)}$ , where n = number of required sample, p = prevalence of ostomy patients, d=possible error i.e. considered as 10%, and z=level of significance i.e. 1.96 (at 95 % confidence interval). Assuming prevalence of ostomates as 50% and 10% non-response rate, the calculated sample size was 116.

The tool includes socio-demographic information, QoL questionnaire for ostomy patient developed by City of Hope and Beckman Research Institute and Hospital Anxiety Depression Scale (HADS).<sup>9,10</sup> QoL questionnaire included four domains and 43 items using 10- point scales. Physical domain: items 1-11, Psychological domain: items 12-24, Social domain: items 25-36 and Spiritual domain: items 37-43.

Scoring: 0 = worst outcome/negative QoL and 10 = best outcome/positive QoL

The items 1 - 12, 15, 18-19, 22-30, 32-34, 37 were reverse coded before data entry.

A total QoL score is obtained by adding the scores on all 10-point items and dividing by the total number of items.<sup>9</sup>

To measure anxiety and depression, Hospital Anxiety Depression Scale (HADS) containing 14 items, 7 related to anxiety and 7 related to depression was used.

Scoring: 0-7= Normal, 8-10= Borderline abnormal (Borderline case)

11-21= Abnormal (Case)<sup>10</sup>

QoL questionnaire and HADS scale is validated tools<sup>11,12</sup> and to establish validity in Nepalese context, consultation with peers, advisors, subject/field experts and research committee members was done following translation and back translation of tool into the Nepali and English language.

Study purposes were explained and Informed written consent was obtained from each respondent before collecting data. Respondents were informed about their voluntary participation and right to withdraw.

The collected data were cleaned, entered and analysed using the SPSS version 20. The data were analysed based on objectives using a descriptive statistical method such as frequency, percentage, mean and standard deviation. Inferential statistics, namely chi-square test, was used to identify an association of QoL level in clients with an ostomy with selected variables.

## RESULTS

A total of 116 respondents participated in this study with the mean age  $\pm$  SD of 48.12  $\pm$  16.72 years. The majority of respondents were male (63%), and literate (84.5%). Nearly 70% respondents were employed before ostomy surgery and the proportion was reversed after surgery (Table 1).

**Table 1. Socio-demographic Characteristics of respondents (n= 116)**

Variables	Response	Number, n (%)
Age (in years)	20-40	34 (29.4)
	41-60	62 (53.4)
	61-85	20 (17.2)
Mean age $\pm$ SD	48.12 $\pm$ 16.72	
Gender	Female	43 (37.0)
	Male	73 (63.0)
Ethnicity	Relatively advantaged Janajati	54 (46.6)
	Upper caste group	42 (36.1)
	Others <sup>a</sup>	20 (17.3)
Marital status before ostomy	Never married	9 (7.8)
	Married	105 (90.5)
	Widowed	2 (1.7)
Marital status after ostomy	Never married	7 (6.0)
	Married	97 (83.6)
	Separated	2 (1.7)
	Widowed	10 (8.7)

Educational status	Cannot read and write	18 (15.5)
	Can read and write	98 (84.5)
Occupational status before ostomy	Employed	81 (69.9)
	Unemployed	35 (30.1)
Occupational status after ostomy	Employed	36 (31.0)
	Unemployed	80 (69.0)
Changed occupation after ostomy	Yes	55 (47.4)
Ostomy as reason for change occupation (N=55)	Yes	52 (94.5)

Others: Dalit, Disadvantaged janajati, religious minorities, Disadvantaged Non-Dalit Terai Caste

Cancer was the major indication for an ostomy in most (91.4%) of the respondents and majority (70.7%) had a colostomy. About one third (23.3%) of respondents reported having comorbidities with diabetes mellitus (33.3%) being the common one. Nearly one third (31.9%) of respondents had complications related to an ostomy and skin excoriation (26.7%) was observed frequently as a complication. Feeling depressed (69.0%) was commonly reported by respondents while the suicidal thoughts or attempts was reported by one fourth (24.1%) of respondents. More than three fourth (72.4%) had an opportunity for the ventilation of their feelings with other clients with an ostomy (Table 2).

**Table 2. Clinical details of respondents (n= 116).**

Variables	Response	Number, n (%)
Indications for ostomy	Cancer	106 (91.4)
	Others <sup>a</sup>	10 (8.6)
Types of ostomy	Ileostomy	13 (11.2)
	Colostomy	82 (70.7)
Status of ostomy	Urostomy	21 (18.1)
	Permanent	103 (88.8)
Duration of having an ostomy Mean duration: 1.78±0.77 years	Temporary	13 (11.2)
	2 months to 1 year	49 (42.2)
	2 years to 5 years	43 (37.1)
	≥ 6 years	24 (20.7)

Obtained ostomy information before surgery	Yes	35 (30.2)
Chemotherapy took for cancer treatment (n=106)	Yes	86 (74.1)
Presence of Comorbidities	Yes	27 (23.3)
Types of comorbidities (n=27)	Hypertension	6 (22.2)
	Diabetes mellitus	9 (33.3)
	Others <sup>b</sup>	12 (45.5)
Ostomy related complication	Yes	37 (31.9)
Types of complications (n=37)	Skin excoriation	31 (26.7)
	Parastomal hernia	6 (31.9)
Depressed feeling after having an ostomy	Yes	80 (69.0)
Suicidal consideration/ attempt since ostomy	Yes	28 (24.1)
Opportunity for ventilation of feeling with other clients with an ostomy	Yes	84 (72.4)

Others<sup>a</sup>: Trauma, a complication of radiotherapy, inflammatory bowel disease, bowel obstruction, intestinal T.B.; #Multiple responses; Others<sup>b</sup>: COPD, cholelithiasis, Musculoskeletal problems, gastritis, hypothyroidism, Jaundice.

Regarding Sexual activity, majorities (85.3%) of respondents were sexually active before ostomy surgery, and 72.4% of them abstained from sexual activities after an ostomy. Concerning the sexual satisfaction among respondents who resumed sexual activity after ostomy, majority (68.7%) of them reported their sexual activity as satisfactory. Most (76.7%) of respondents reported that ostomy had caused the problem in clothing, and 78.4 % of respondents had changed their clothing style because of ostomy. The majority (75%) of respondents reported that they adjusted their diet because of ostomy and more than half (67.2%) changed their diet to prevent passing gas in public. Most of the respondents (81.9%) felt comfortable with daily ostomy care after a year, and 62.1% of respondents reported that their appetite returned after a year after surgery. The majority (62.1%) of respondents mentioned that they required 30 minutes to 1 hour perform daily ostomy care (Table 3).

**Table 3. Respondent's response on changes in the usual activities after ostomy (n= 116).**

Variables	Response	Percentage n(%)
<b>Information regarding Sexual Activity</b>		
Sexually active before ostomy (n=116)	Yes	99 (85.3)
Resumed sex after ostomy (n=116)	Yes	32 (27.6)
Sexual satisfaction after ostomy (n=32)	Yes	22 (68.7)
Erectile problem in male after ostomy (n=73)	Yes	34 (46.6)
<b>Information regarding clothing and diet</b>		
Clothing problem	Yes	89 (76.7)
Change in clothing style	Yes	91 (78.4)
Dietary adjustment	Yes	87 (75.0)
Change in diet to prevent passing gas in public	Yes	78 (67.2)
Avoid eating carbonated beverages	Yes	64 (55.2)
Avoid eating dairy products	Yes	44 (37.9)
Avoid eating fruits	Yes	23 (19.3)
Avoid eating snacks	Yes	50 (43.1)
Avoid eating vegetables	Yes	24 (20.7)
<b>Information regarding the time required to feel comfortable with daily ostomy care and diet, to return appetite and time required for daily ostomy care</b>		
To feel comfortable with daily ostomy care	1 to 12 months	19 (16.4)
	More than a year	95 (81.9)
	Never	2 (1.7)
To return appetite	1 to 12 months	13 (11.2)
	More than a year	72 (62.1)
	Never	31 (26.7)
Time required for daily ostomy care	≤ 30	19 (16.4)
	30 minutes to 1 hour	72 (62.1)
	More than an hour	25 (21.6)

Among the four QoL domains, the respondent's mean QoL score was highest in the physical domain (5.96±1.52) with a mean percentage of 59.6%. The least affected physical domain component was aches or pains (6.98±2.38) whereas the most affected component was physical strength (4.95±2.28). The least affected items of the psychological domain were the ability to remember things embarrassed by ostomy (5.83±2.42) and the most affected item was control of things in your life (4.39±2.31). Respondent's mean QoL score of the social domain was difficulty meeting new people (5.84±2.92), whereas the lowest score was on financial burden resulted from illness or treatment (2.45±2.03). Respondent's QoL score of the spiritual domain was higher on sense a reason for being alive (5.39±1.93) and was lower on the support you receive from personal spiritual activities such as prayer or meditation sufficient to meet your needs (4.52±2.12) (Table 4).

**Table 4. Respondent's Scores in Four Domains of QoL (n= 116).**

Domains of QoL	Min. Score	Max. Score	Mean ± SD	Mean (%)
Physical domain	2.45	9.82	5.96±1.52	59.6
Psychological domain	1.08	9.15	5.07±1.26	50.7
Spiritual domain	2.29	10	4.96±1.36	49.6
Social domain	2.08	8.50	4.71±1.44	47.1
Total	3.29	9.34	5.89±1.34	58.9

The study findings show that more than half (59.5%) of respondents had low QoL, 66.4% and 72.4% of respondents had abnormal level of anxiety and depression respectively. There was a strong association of level of QoL with a duration of having an ostomy, clothing problem due to ostomy and change in clothing style ( $p<.001$ ) whereas no significant association of level of QoL of ostomates with socio-demographic variables ( $p>0.05$ ) and clinical variables ( $p>.05$ ). The level of anxiety was statistically significantly associated with suicidal consideration/attempt ( $p=.04$ ) while no significant association was seen with sociodemographic and clinical variables (Table 5).

Table 5. Association of Level of QoL, Level of anxiety and Level of depression with selected variables.

Variable	Level of QoL		p-value*	Level of Anxiety		p-value*	Level of Depression		p-value*
	Low (59.5%)	High (40.5%)		Normal (33.6%)	Abnormal (66.4%)		Normal (27.6%)	Abnormal (72.4%)	
Duration of having an ostomy			0.01*			0.52			0.81
2 months to 1 year	34(69.4%)	15(30.6%)		14(28.6%)	35(71.4%)		12(28.6%)	37(71.4%)	
2 years to 5 years	27(62.8%)	16(37.2%)		15(34.9%)	28(65.1%)		13(34.9%)	30(65.1%)	
≥ 6 years	8(33.3%)	16(66.7%)		10(41.7%)	14(58.3%)		7(41.7%)	17(58.3%)	
Problem in clothing due to location of ostomy			0.02*						0.78
Yes	58(65.2%)	31(34.8%)		29(32.6%)	60(67.4%)	0.67	24(27.0%)	65(73.0%)	
No	11(40.7%)	16(59.3%)		10(37.0%)	17(63.0%)		8(29.6%)	9(70.4%)	
Changed in clothing style due to ostomy			0.002*			0.08			0.12
Yes	61(67.0%)	30(33.0%)		27(29.7%)	64(70.3%)		22(24.2%)	69(75.8%)	
No	8(32.0%)	17(68.0%)		12(48.0%)	13(52.0%)		10(40.0%)	15(60.0%)	
Satisfactory sexual relationship			0.68			0.71			0.61
Yes	12(54.5%)	10(45.5%)		8(44.5%)	14(63.6%)		5(22.7%)	17(77.3%)	
No	7(70.0%)	3(30.0%)		3(30.0%)	7(70.0%)		4(40.0%)	6(60.0%)	
Erectile problem in male (n=70)			0.73			0.97			0.89
Yes	22(64.7%)	12(35.3%)		11(32.4%)	23(67.6%)		9(26.5%)	25(73.5%)	
No	20(55.6%)	16(44.4%)		12(33.3%)	24(66.7%)		9(25.0%)	27(75.0%)	
Suicidal consideration/attempt since ostomy			0.30			0.04*			0.41
Yes	19(67.9%)	9(32.1%)		5(17.9%)	23(82.1%)		6(21.4%)	22(78.6%)	
No	50(56.8%)	38(43.2%)		34(38.6%)	54(61.4%)		26(29.6%)	62(70.5%)	

\*p value &lt; .05 is significant

## DISCUSSION

The present study finding shows that the respondent's age ranged from 20 to 85 with a mean age  $48.12 \pm 16.72$  years, 63.0% of respondents were male, and 15.5% were illiterate. Findings of this study are consistent with the study conducted in BPKMCH, Bharatpur in which age ranged between 21 to 80 years with mean age 48.9 years, 61.7% of respondents were male, and 17.0% of respondents were illiterate.<sup>13</sup> Present study revealed that marital status remained almost unchanged after an ostomy. A similar finding has been reported in the study conducted in Punjab, India<sup>14</sup>, Brazil<sup>15</sup> and in Iran<sup>16</sup> which revealed that marital status did not change after ostomy.

The present study depicted that majority (69.9%) of the respondents were employed before ostomy, but after ostomy surgery, the majority (69%) were unemployed.

Almost half of the respondents (47.4%) had changed occupation. The presence of an ostomy was cited as the primary reason for changing occupation by the vast majority of (94.5%) of respondents. A cross-sectional study done in Iran showed that 37.1% lost their job post-ostomy.<sup>17</sup> This discrepancy may be due to non-government job of respondents, which they lost after ostomy. Similar to this study finding has been identified in the study conducted in Iran, where 83.3% of ostomates had changed their job because of ostomy.<sup>11</sup>

In the present study, almost all (91.4%) of ostomies were created due to cancer. The finding was parallel with a study conducted in Nepal,<sup>18</sup> which showed that 87.7% of ostomies were due to malignant diseases. Similarly a study in Turkey showed 64.9% patients had stoma surgery due to colon cancer<sup>19</sup> but in contrast to this finding a study in India showed only 11.0% of ostomies were created due to cancer.<sup>14</sup> The findings of the study



conducted in Punjab, India depicts that 25% cause for ostomy was intestinal obstruction and 90% of ostomy was temporary type which might be the reason behind this incongruity in the study result.

This study revealed that 70.1% of patients had a colostomy, and most (88.8%) were permanent. A study conducted among the stoma patients of the Iranian Ostomy Society (IOS) found similar result where colostomy was the most common type of stoma surgery (67.6%), and in 80.4% of patients, stoma had been permanently created.<sup>11</sup> Nearly half of the current study respondents live with an ostomy for less than or equals one year which is consistent with finding of study in Nepal, where 46.8% of respondents were living with an ostomy for less than or equals to one year.<sup>13</sup> This study showed that the mean time required for daily ostomy care was  $29.89 \pm 12.44$  minutes whereas patients in India required 39 minutes for daily ostomy care.<sup>14</sup>

Majority (85.3%) of the respondents in this study were sexually active before an ostomy and among them only 27.6% resumed sexual activity after surgery. This finding is similar with a study in India, in which 81.4% were sexually active before surgery and 33.3% resumed sexual activity after surgery.<sup>14</sup> In this study, most of the respondents (68.7%) who resumed sexual activity reported dissatisfaction and nearly half (46.6%) of male respondents reported erectile problems. Similar to this study findings, a study in Turkey<sup>19</sup> and India<sup>14</sup> reported severe erectile dysfunction among 55% and 40.2% male participants respectively, and 31.4% reported sexual dissatisfaction.<sup>14</sup>

The present study revealed that more than half (69.8%) respondents didn't received information about ostomy before surgery. This finding is consistent with findings from Iran<sup>16</sup> and Brazil<sup>20</sup> where 75.0% and 77.8% of respondents were not previously informed about stoma. Concerning the psychological aspect, the majority (69.0%) of respondents in the current study reported depression after creating ostomy. A constant finding was reported in India, which portrayed that 63.0% of respondents felt depression after ostomy surgery.<sup>14</sup> Another study in Turkey<sup>21</sup>, Iran<sup>7</sup> and Pakistan<sup>22</sup> also support this study finding, which reported majority of patients (more than 70%) experience anxiety, depression and stress following stoma surgery.

Findings of the current study suggest that living with an ostomy affects overall QoL. It was found that only less than half (40.5%) of respondents had high QoL. This finding is alike to finding of a study conducted in India,

which showed that 44.0% of ostomates possessed the best QoL.<sup>23</sup> In the present study, the mean QoL score was  $5.89 \pm 1.34$ . The contradiction was observed in the findings of studies done in Iran<sup>11</sup> and India<sup>14</sup> which revealed the mean overall QoL score  $7.48 \pm 0.9$  and  $7.60 \pm 2.31$  respectively. This inconsistent finding may be due to different setting of the study.

The present study showed that social domain scored the lowest, and the physical domain scored highest among the other QoL domains which is consistent with a study in India where social domain was the most affected.<sup>11</sup> Also another study in Turkey showed highest scores in work/social function domain while lowest score in the sexuality/body image domain.<sup>19</sup> It is perhaps because physical and psychological disorders resulting from stoma may gradually reduce a person's confidence and reduce social relations. These factors go hand-in-hand and lead to some degree of social isolation.

In the present study, the most and least affected items in the physical domain were physical strength and aches or pain, respectively. In contrast to this finding, the most and least affected items were leaking from the pouch and sleep disorder, respectively.<sup>14</sup> This discrepancy may be because almost all (91.4%) respondents in the current study had ostomy due to cancer and most (74.1%) of them had received chemotherapy which might have decreased their physical strength.

The present study depicted that the most and least affected psychological domain items are felt like controlling things in life ( $4.39 \pm 2.31$ ) and embarrassed by ostomy ( $7.0 \pm 1.51$ ). The contradictory finding was stated in India's study, which showed that the most and least affected items in 'psychological domain as depression and remembering things.<sup>14</sup>

The present study reflected that respondent's mean QoL score of the social domain was lowest on financial burden resulted from illness or treatment ( $2.45 \pm 2.03$ ) whereas the highest score was on difficulty meeting new people ( $5.84 \pm 2.92$ ).

This finding is inconsistent with findings from India in which the least affected one was support from family and friends sufficient to meet needs, and the most affected element was illness distress to the family.<sup>14</sup> This contradictory finding may be because the majority (69.0%) of the respondent was unemployed after ostomy surgery. Similarly, other possible reason might be inadequate free health services to the clients with an ostomy from Government of Nepal and out-of-pocket payment system.

The present study showed that the positively affected items of the spiritual domain were support received from personal spiritual activities such as prayer or meditation, and the least affected component was a sense a reason for being alive. In contrast to this, a study done in India revealed that the most and least affected spiritual domain items were the sense of inner peace and support received from religious activities sufficient to meet needs respectively.<sup>14</sup>

Based on a mean score of this study two-thirds (66.4%) of the respondents were in the borderline and abnormal anxiety level. This finding is consistent with an Iranian study where the prevalence of anxiety was 56.7%.<sup>24</sup> Based on a mean score of this study, more than two-thirds of the respondents (72.4%) were in the borderline and abnormal depression level. A consistent finding was found in an Iranian study, where approximately 63.0% ( $n = 64$ ) had feelings of depression.<sup>16</sup>

The present study revealed that there was no statistically significant association of age ( $p=0.75$ ), gender ( $p=0.87$ ), marital status after ostomy ( $p=0.59$ ) with the level of QoL among ostomates. This finding is supported by the study done in Punjab and Delhi which revealed no significant association of age, sex<sup>14</sup> and marital status after ostomy<sup>14,23</sup> with the level of QoL. In contrast to present study findings, a study in Brazil showed support from family/spouse had significant association with QoL.<sup>25</sup>

Present study findings did not show association of level of QoL and selected socio-demographic variables like age, gender, and education. Gender had influence on QoL in the study of China also.<sup>26</sup> Whereas these findings were contradictory with the study of Delhi, India, which showed that there was a significant association of QoL score of clients with an ostomy with age, sex and education.<sup>23</sup> On the other hand, a multisite cross sectional study in China, found that religious beliefs, marital status had influence on QoL.<sup>26</sup> The current study illustrated no significant association of occupational status after ostomy with the level of QoL ( $p=0.56$ ). This is inconsistent with the study result conducted in India, which revealed a significant association of level of QoL with occupational status after ostomy ( $p<0.05$ ).<sup>14</sup>

The present study revealed no association of status of ostomy with the level of QoL ( $p=0.45$ ). Majority of clients with permanent ostomy had high QoL. Contrast finding was reported in the study conducted in Brazil, which revealed an association of ostomy status with QoL ( $p=.01$ ).<sup>27</sup> The present study's finding showed no

significant association of QoL level with types of ostomy. This finding is similar to the finding of Delhi, which showed that there was no significant association of level of QoL with types of ostomy.<sup>23</sup> The present study's finding showed a strong association of level QoL with an ostomy duration ( $p<0.001$ ). This finding is consistent with the study conducted in Brazil, which showed that patient with shorter time since ostomy creation had worse score ( $p=0.006$ )<sup>27</sup> and another study in Delhi also showed an association between QoL score of ostomates with a duration of ostomy surgery.<sup>23</sup>

There was no significant association between level of anxiety and level of depression with variables like age, gender, marital status, ethnicity, educational status, occupational status after ostomy, indication for an ostomy, types of ostomy, status of ostomy, duration of having ostomy, chemotherapy, complication and comorbidity. This result is consistent with the study done in Sri Lanka, which did not find a significant association of anxiety and depression with type of ostomy, marital status, and educational level.<sup>12</sup>

This study was conducted in stoma clinics among the clients with an ostomy who attended the clinic at the time of data collection. So, the findings do not reflect the QoL of many ostomates who had no access to the stoma clinic.

## CONCLUSIONS

In conclusion, the findings show that living with an ostomy influence the overall aspect of QoL. Sexual problems, financial burden, psychological problems like anxiety, adjustment difficulty with an ostomy, feeling of depression, suicidal consideration/attempt are the most common problems of clients with an ostomy. Level of QoL in ostomates seems to be associated with duration of having an ostomy, problem in clothing due to ostomy location, and change in clothing style due to ostomy. Level of anxiety in clients is associated with suicidal consideration/attempt since having an ostomy. Sexual and psychological counselling, education for clients and their family, ostomates' conference, and more ostomy support groups may improve the QoL in clients with an ostomy.

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#### CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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