

Factors Affecting Communication Skills among Patients with Facial Disfigurement

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Abstract

Background: Patients with facial disfigurement still encountered with social stigmatization, major life crisis which subsequently may relate to negative self- perception. Social support is the important factor that may affect the psychosocial adjustment of patients with facial disfigurement. **Aim of the study:** to assess factors affecting communication skills among patients with facial disfigurement. **Design:** A descriptive exploratory (cross- sectional) research design was utilized. **Setting:** The study was conducted in Ismailia city in Suez Canal university hospitals at outpatients' clinics (Surgery, Plastic Surgery and Dermatology). **Subjects:** Purposive sample comprised 191 patients admitted to the previous mentioned setting. **Tools of data collection:** *tool I:* interview questionnaire to assess demographic data and medical history, *tool II:* questionnaire to assess factors affecting facial disfigurement and included self- esteem, stigma and perception, and *tool III:* questionnaire to assess communication skills. **Results:** The studied subjects were aged between 35< 45 years old with 57.1 % of them were females. The majority of the patients were average self-esteem and highly socially stressed. Most of disfigured patients were stigmatized and more than three fifths of the them had perceived negative impact on psychological and emotional wellbeing. Also, the majority of the patients showed lacking of social communication skills. **Conclusion:** The study concluded that disfigured patients had a problem with communication skills that had a significant relationship with highly socially stressed, feeling stigmatized, social impairment, and negative impact on psychological well-being. **Recommendations:** develop psychosocial services in health care institutions to provide psychological support and rehabilitation for facially traumatic patients.

Keywords: Communication, Facial disfigurement, Self-esteem, Social support, Stigma.

1. Introduction:

Disruption to one's facial appearance might represents a profound disruption of body image constituting a major life crisis which subsequent negative self-perception and might cause psychosocial problems. On the contrary,

response to a dramatic change in facial appearance can result in grieving followed by a slow process of adaptation (Leder, H. & Mitrovic, A. 2016; Henna, B. & Prabal, D. 2019). Most frequently, difficulties related to negative self-perception and impaired social interaction persist throughout life. Social

anxiety, fear of negative social evaluation, and social avoidance are the most common (Crandall et al., 2017). Diminished or altered facial expression affect normal face-to-face communication: nonverbal facial signs can be misinterpreted. These might lead to social problems, reduce emotional wellbeing, maladaptive behaviors, feel stigmatization and shame (Barden et al., 2017).

Among the impeded social interaction are meeting new people, making new friends and difficulty developing long-term relationships. Reactions among family members and peers towards people with disfigurement commonly include teasing, staring, commenting, asking unsolicited questions about the disfigurement, and exhibiting avoidant or negative behavior. Unsurprisingly, these negative interactions can lead to affected persons' preoccupation with their appearance in anticipation of future similar experiences. This preoccupation with appearance can in turn exacerbate the psychosocial challenges of disfigurement by shrinking affected persons' available social support network (Rifkin et al., 2018).

The society consumed by the ideal image of beauty: attractive individuals have been known to receive preferential treatment in healthcare, academia, and when seeking employment or career progression. There are few positive role models of disfigured people in

the media. Disfigured patients might feel highly visible (people stare). Many feel on display all the time and have to maintain a constant vigilance, resulting in increased self-consciousness (Croley et al., 2017).

Disfigured patients might feel alone and isolated. Others might restrict their social activities or believe they could not have intimate relationships. They often express feelings of anger, unfairness, embarrassment, and lack of communication with family and friends. These changes can affect psychosocial functioning, leading to low self-esteem, depression, somatization, withdrawal, and social distress (Dolphin, L. & Hennessy, E. 2016). A visible disfigurement impacts not only the thoughts, feelings and behaviors of the survivor, but also how they are perceived and treated by others (Roche et al., 2015; Ferrari, C. et al., 2017).

1.1. Significance of the study

The psychiatric nurse had a vital role in addressing the specific psychosocial concerns of individuals with facial disfigurement, including addressing the stressors facing disfigured patients that affect psychological well-being and coping with facial disfigurement, as disfigured patients might feel alone and isolated, restrict their social activities, feelings of anger, embarrassment, and lack of communication with family and friends.

These changes can affect psychosocial functioning, leading to low self-esteem, depression, somatization, withdrawal, and social distress (Dolphin & Hennessy, 2016).

Aim of the study:

To assess factors affecting communication skills among patients with facial disfigurement.

Research questions

1-Is there a relationship between factors affecting communication skills and communication skills among patients with facial disfigurement?

2. Subject and Methods

2.1. Research Design:

A descriptive exploratory (cross-sectional) research design was utilized.

2.2. The sample of the study:

Sample of 191 patients were selected to participate in the study. Sample size was calculated using this formula (Israel & Glen, D. 2009).

$$n = \frac{Z^2 P q}{e^2}$$

n= sample size

Z: a percentile of standard normal distribution determined by 90% confidence level = 1.656

e: The desired level of precision = 5

p: The estimated proportion of an attribute that is present in the Population (0.5). (Cochran, W. G. 1977)

q: Is 1-p. The value for Z is found in statistical tables which contain the area under the normal curve.

$$\text{Sample size (n)} = \frac{(1.656)^2 (0.5) (0.5)}{(0.06)^2} = 191.$$

The cases of facial disfigurement were selected according to the following criteria: Patient's age above 18 years, both genders and acquired facial disfigurement of more than one-year duration. The exclusion criteria include Patient with proven psychiatric illness or mental handicap.

2.3. Study setting:

The current study was carried out at Suez Canal University Hospital Ismailia in both Plastic Surgery and Dermatology outpatient Clinics.

2.4. Research Questions:

Q1: Assess the communication skills among patients with facial disfigurement

Q2: Determine relationship between factors affecting communication skills among patients with facial disfigurement.

2.5. Tools of data collection

A structured interview questionnaire involved three parts as:

Part I: Personal characteristics and medical history as age, gender, level of education, marital status, medical history.... etc.

Part II: Communication skills among patients with facial disfigurement: It consisted of two sections as following:

Section 1: Verbal communication skills scale: It was developed by **Spitzberg, (1984)** that include observer rating of conversant form applied to assess verbal communication skills among patients with facial disfigurement. Total reliability statistics of verbal communication skills with Cronbach's Alpha in the pilot study was .940. It consisted of 14 items rated on a five-grade response, ranging from 5 to 1, with "5" indicating excellent, "4" indicating good, "3" indicating adequate, "2" indicating fair, and "1" indicating inadequate.

Scoring system: scores for the items can be calculated individually by summing the relevant items within the five scoring bands: the score ranging from (15 to 75) where Scores between (34 to 75) indicate high verbal communication; scores from (28 to 33) indicate average verbal communication; scores from (15 to 27) indicate low verbal communication.

Section 2: Nonverbal communication skills scale: It was adopted from Nonverbal Immediacy Scale-Self Report (NIS-SR) that was developed by **Richmond et al., (2003)** to assess non-verbal communication skills among patients with facial disfigurement. Total

Reliability Statistics of Nonverbal communication skills with Cronbach's Alpha in the pilot study was .90. It consists of 12 points rated on a 5-point scale, ranging from 5 to 1, in which "5" indicating very often, "4" indicating often, "3" indicating occasionally, "2" indicating rarely, and "1" indicating never.

Scoring system: Total score include three steps: step (1) adding the scores from the following items 1, 5, 6, 8, 10 and 12, then step (2) adding the scores from the following items 2, 3, 4, 7, 9 and 11. Step (3) calculating total Score equal 78 plus Step 1 minus Step 2.

Females Mean = 102.0 S.D. = 10.9 High = >112 Low = <92

Males Mean = 93.8 S.D. = 10.8 High = >104 Low = <83

Part III: Factors affecting communication skills among facially disfigured patients that consisted of five sections as following:

Section 1: Illness perception questionnaire scale: It was adopted from illness perception questionnaire-mental health (IPQ-MH) scale that was developed by **Weinman et al., (1996)** to assess clients' facial disfigurement perceptions in mental health through psychological complaints and patients' beliefs about their facial disfigurement. Total Reliability Statistics of Perception of facial disfigurement with Cronbach's Alpha in the pilot study was .853. It includes 20 points rated on a 5-points rating scale ranging from (5 to 1)

in which “5” indicating strongly agree, “4” indicating agree, “3” indicating not agree nor disagree, “2” indicating disagree and “1” indicating strongly disagree.

Scoring system: The scores are scaled in the positive direction (the higher the score, the more the problem is perceived). The total score was calculated by summing up and converted into a percent score. Cut off point was 60: more indicating perceived negative, and less indicating no perceived negative effect of disfigurement.

Section 2: Stigma of facial disfigurement: It was created by the researcher after reviewing of the following literature: (Fingeret, M.C. 2012; Costa et al., 2014) to assess presence of personalized stigma (self-stigma) among patients with facial disfigurement. Total Reliability Statistics of Stigma of facial disfigurement with Guttman Split-Half Coefficient was .70. It consisted of 10 questions to assess fear of being stigmatized, concerns about people's reactions towards people with facial disfigurement. Items 2 and 8 are reversed scoring. It rated on a 4-point scale, ranging from (0 to 3) in which “3” indicating strongly agree, “2” indicating agree, “1” indicating disagree, and “0” indicating strongly disagree.

Scoring system: The scores are scaled in the positive direction (the higher the score, the more the stigma is perceived). Items 2 and 8 are reversed scoring. The total score was calculated

by summing up and converting into a percent score. Cut off point of less than 33rd indicate mild stigma, from 33rd to 66th indicated moderate stigma, and more than 66th indicate sever stigma. This categorization was exclusively done for this study.

Section 3: Rosenberg's self-esteem scale: It was developed by Rosenberg, (1965) and translated by researcher to measure self-esteem of patients with facial disfigurement. Total reliability statistics of self-esteem scale with Cronbach's Alpha was .762 It consisted of 10 points, rated on a 4-point scale, ranging from 0 to 3, in which “3” indicating strongly agrees, “2” indicating agree, “1” indicating disagree, “0” indicating strongly disagree.

Scoring system: Items 1, 2, 4, 6 and 7 were positively worded statements while, items 3, 5, 8, 9 and 10 were negatively worded and reversed scoring. The scale ranged from (0 to 40). Scores between (15 and 25) indicating normal range of self-esteem; scores from (0 to 14) indicating low self-esteem; scores from (26 to 40) indicating high self-esteem.

Section 4: Cohen's stress perceived scale: It was developed by Cohen et al., (1983) to measure psychological stress among patients with facial disfigurement and the degree to which situations in one's life are appraised as stressful. Total Reliability Statistics of perceived social stress scale with Cronbach's Alpha was .73. It consisted of 10 questions,

rated on a 5-point scale, ranging from 0 to 4 in which “0” indicating never, “1” indicating almost never, “2” indicating sometimes, “3” indicating fairly often and “4” indicating almost never.

Scoring system: Items 1, 2, 3, 6,9 and 10 are the negatively stated items while, items 4, 5, 7, and 8 are the positively stated items and reversed scoring. Scores around 13 are considered average. Scores around 20 or higher are considered high stress.

Section 5: Social impairment: It was developed by researcher after reviewing the following literature: (Rosser & Nelson, 2012; Michael et al., 2012; Rumsey, 2014). to assess degree of social impairment among patients with facial disfigurement. It included five statements ranging from slight embarrassment to extreme embarrassment. The patient was asked to select only one statement which reflect his disfiguring condition.

2.6. Reliability of the Tool

Reliability was determined using Cronbach’s a provided a reliability an estimate of .76 for Rosenberg self-esteem scale, .85 for Perception of facial disfigurement, .73 for social stress perceived scale, .94 for verbal communication Skills and .90 for nonverbal communication Skills. The reliability of Stigma of facial disfigurement was

determined using the Guttman split-half coefficient an estimate of .70.

2.7. Field of work

Data was collected over a period of 6 months; actual field work was carried out from the beginning October (2016) to the end of March (2017). The study was conducted in Suez Canal University Hospital, Ismailia; both in Plastic Surgery Clinic (Monday and Tuesday) and Dermatology Clinics (Wednesday). These outpatient clinics anticipate patients attend with facial disfigurement caused by accidents, tumors and dermatological conditions. During interview with facially disfigured patients, the researcher introduced herself and gave brief explanation about the aim of study and oral consent was obtained from each subject before data collection. The data was collected from one to two patients per day at the waiting areas outside the outpatient clinics during the patient's attendance to the clinic for check-up as doctor ordered. Each patient was individually interviewed using the study tools for 35-45 minutes. The questionnaire was filled on two times: before entering the clinic and at the end of follow up.

2.8. Administrative design

An official permission for collection of data was obtained. Official letters were sent from the Faculty of Nursing to the Board of Suez Canal University (SCU),

explaining the aim of the study and its expected outcome. Permission from the hospital was obtained to conduct the study at the hospital after obtaining permission from the director of clinics.

2.9. Ethical considerations:

The agreement for participation of facially disfigured patients was taken after explanation the aim and nature of the study. The researcher informed the patients that participation in the study was voluntary, also they were notified that they were assured that the information would be renowned confidentially and used for the research purpose only, and they have the right to withdraw from the study at any time.

2.10. Statistical design

The collected data was coded, organized, categorized, tabulated, computerized and analyzed using statistical package of the social sciences (SPSS) software program version 20.

3. Results

Figure (1) showed that almost all of the disfigured patients (93.2%) were low competent in verbal communication skills and about three quarter (75.4%) were low competent in nonverbal communication skills,

while low percentage of patients were highly competent in verbal communication skills (1.6%) while 6.3% of disfigured patients were low competent in nonverbal communication skills.

Figure (2) showed the level of personalized social stigma among facially disfigured patients according to cutoff point of (SSQ), more than half (54.5%) of disfigured patients were severely socially stigmatized, while 44.5% of disfigured patients were moderately socially stigmatized as shown in.

Figure (3) revealed the ranking of social stress among facially disfigured patients according to cutoff point of (CSPS). As the majority of disfigured patients (70%) were highly socially stressed, only low percentage of patients (11%) were not stressed.

Figure (4) showed the ranking level of social impairment among facially disfigured patients. High percentage (49.7%) of disfigured patients viewed facial disfigurement as less disfigured but it caused some embarrassment. Minority (8.9%) of patients viewed facial disfigurement as causing significant embarrassment and avoidance of normal daily activities.

Table (1) revealed there was a highly statistically significant positive relationship between patient's social stress and stigma ($R=.373$, $P=.000$), total social impairment ($R=.407$, $P=.000$), nonverbal communication ($R=.278$, $P=.000$), and verbal communication

($R=.238$, $P=.001$) respectively as perceived by patients. There was a statistically significant negative relationship between patient's self-esteem and stigma ($R=-.216$, $P=.003$). There was a statistically significant positive relationship between patient's stigma and social impairment ($R=.531$, $P=.000$), verbal communication ($R=.252$, $P=.003$), nonverbal communication ($R=.321$, $P=.000$). There was a statistically significant negative relationship between patient's stigma and perception ($R=-.534$, $P=.000$). There was a statistically significant positive relationship between patient's social impairment and nonverbal communication ($R=.311$, $P=.000$).

Table (2) showed that there was a highly statistically significant relationship between patient's verbal communication and nonverbal communication ($R=.521$, $P=.000$). Additionally, there was a negative statistically significant relationship between patient's perception and verbal communication ($R=-.109$, $P=.132$) and nonverbal communication ($R=-.174$, $P=.016$).

4. Discussion:

Concerning competency in communication skills among disfigured patients, the majority of patients showed lacking social skills and this may be due to communication didn't mean talking and listening that much of communication depend on body language

through expressions of face that many patients feel anxious and embarrassed on how to hold a normal conversation with others as in social interaction, the direction of looking toward the face of a conversational partner to explore several functions of attention during social interaction, including turn taking, shared attention and detection of emotion. These ashamed feelings made disfigured patients to be very stiff to initiate new topics or stimulate other initiation, hurry to end conversation with other using concealment behaviors to hide disfigurement such as wear veil, wear sunglasses and putting hand over the face during conversation with others.

The prior result was in the same line with **Doss et al., (2017)** entitled " Influences of facial disfigurement and social support for psychosocial adjustment among patients with oral cancer in Taiwan: a cross-sectional study" who reported that, facial deformity seriously affect an individual's body image and communication that they suffer setbacks in interpersonal interactions due to their disfigured appearance resulting in feeling embarrassment in social situation, withdrawal, alienation and social isolation. Also, **Rieke et al., (2017)** showed that self-reports of negative emotional reactions to others were influenced by social desirability that generally affect perceived self-confidence leading to social skills decrease.

Regarding personalized stigma which described

as society's negative evaluation of the particular features or behavior of certain individuals as illuminated by **Deudekom, (2017)** the most of the patients were self-stigmatized. This may be due to the majority of the patients had severe facial disfigurement that is more obvious and drawn attention of others, that generate feeling of deviation caused the patients to adopt maladaptive concealing behaviors to hide disfigurement ranging from the most one to lowest one as following; avoiding going out as possible, putting over makeup, averting the face, put hand over the face during communication as possible and wearing veil to hide disfigurement from others. These concealing behaviors usually put patient in psychological distress that increases the feeling of self-stigmatized.

Moreover, when the patients feeling stigmatized, the physical flaws become a negative form of identity by which several inappropriate reactions are elicited from close associates, neighbors, and even strangers. Also, most of the patients agree that the solution to stigma is to conceal the physical difference sufficiently so as not to be noticed so, patients were seeking cosmetic surgery to complete removal of this difference. Patients and family members clarified lacking of psychological support instituted along with treatments from members of the multidisciplinary team to allow open expression of fearful emotions and

concerns regarding their condition **Skinner et al., (2016)**.

Also, patients facing a stigmatized situation on a daily basis that cause a state of embarrassment and sense of negative social evaluation which causes feeling of self-stigmatized and social avoidance. Sociologists of stigma supported this finding as illuminated by **Skinner et al., (2016)** and pointed out that damaged physical appearance is not only a key factor in shaping the perception of others, but also reinforces that the behavior of the stigmatized individual may withdraw more and more from potentially embarrassing situations.

The prior result was in the similarity with a study conducted by **stone & potton, (2014)** in UK whose study conducted on emotional responses to disfigured faces and disgust sensitivity and reported that people with facial disfigurement experience stigmatization due to their difference in appearance. Also, **Costa et al., (2018)** in England who investigate facial disfigurement and identity and reported that facial disfigurement can impede social interaction that those affected report challenges reactions among family members and peers commonly include teasing, staring, commenting, asking unsolicited questions about the disfigurement, and exhibiting avoidant or negative behavior, that disfigured patients preoccupied with appearance in anticipation of future similar experiences.

Regarding level of social stress among disfigured patients, the majority of patients had high social stress, this might be owing to disfigurement endure social pressure that many patients may restrict their social activities because high percentage of patients had severe hypertrophic scar that is shiny, hairless and difficult to keep hidden from the sight of others and affect psychosocial functioning, leading to low self-esteem, somatization, withdrawal, and social distress. Many patients feel upset especially females because disfigurement in areas associated with intimate contact with others that impacts the thoughts, feelings, behaviors of the patient, and how they are perceived and treated by others. Also, lack of social support has a direct effect on psychosocial maladjustment in disfigured patients and prevent the negative effects of facial disfigurement **Deshpande & Ghooi, (2017)**.

This finding supported by the study in India by **Deshpande & Ghooi, 2017** entitled "The fear of disfigurement in cancer patients" which reported that disfigurement in the face that is difficult to be hidden caused distress to patients and severe dislocation in their lives that resulted in social stress in reaction to unpleasant behaviors of others. Also, study conducted by **Wong et al., (2013)** on "Issues of Self-Image, Disfigurement, and Sadness in People Living with Cancer" and revealed that the location of

the disfigurement or scar plays a role in the patient's risk for psychosocial distress like visible scars on the face, hands, arms, and legs as opposed to scars on the body, which are more easily camouflaged.

Regarding prevalence of social impairment among disfigured patients in this study, high percentage of patients viewed that disfigurement was noticeable to cause a slight embarrassment and low percentage of patients viewed that disfigurement was very severe which caused extreme embarrassment and avoidance of public places as possible. This finding might be due to disfigured patients believe that facial region is very important to communication and interpersonal relationships that disfigurement affected negatively social interaction so they felt embarrassment in social situations. Moreover, lacking of social support affects psychosocial adjustment that disfigured patients adopt maladaptive coping strategies as avoidance and concealment to deal with social embarrassment.

The preceding result was in the similarity with a study conducted by **Kumar, (2017)** who reported that people with facial disfigurement feel embarrassment over their appearance to be the most problem associated with their disfigurement. In the same line, the study conducted by **Doss et al., (2017)** which revealed that visible disfigurement has a profound psychological impact on the

individual including adverse effects on body image, quality of life and self-esteem that present a challenge to social interaction that cause social embarrassment.

Focusing on the statistical relation between the current study variables, there was a statistically significant correlation between severity of disfigurement and perception, stigma, self-esteem, social stress and verbal communication. This result might be due to that the majority of disfigured patients had moderate to severe facial disfigurement that presents a serious social and psychological challenge to individual to cope with social stigma and stress which cause extreme embarrassment and negatively impacts social interaction. In the same line the study conducted by **Kumar, (2017)** entitled "Health-Related Quality of Life and the Perceived Palliative Care Needs Among Oral Cancer Patients" which revealed that there was an association between severity of disfigurement and social anxiety, low self-worth and self-esteem and problems with relationships.

Similarly, **Corenelis et al., (2019)** in Netherlands revealed that, there were a significant negative relationship between burn scar severity, self-esteem and social interaction. This similarity may be due to that facial disfigurement causes visible disturbance in facial expression leading to social discomfort which affects self-esteem, social interaction and

communication.

5. Conclusion

The current study found a statistically significant correlation between severity of disfigurement and perception, stigma, self-esteem, social stress and verbal communication. Additionally, there was a positive statistically significant relationship between patient's social stress, stigma, social impairment and communication skills. Finally, there was a negative statistically significant relationship between social stress and perception.

6. Recommendations

In the light of the finding of the current study, the following recommendations can be suggested:

A. Nursing education:

1- Developing psychosocial services in health care institutions which include psychological support and rehabilitation for patients with facial burns.

B. Institutional management and practice:

1- Develop proper informational supporting system between medical health services and psychiatric nursing care to provide patients with social networks that help individuals improve feelings of self-esteem and belonging.

2- Health care services should employ new terminology, which is sensitive where, some individuals may not feel comfortable with the

term disfigurement but may prefer visible difference.

3- Health care institutions involve multidisciplinary team should support individual with facial disfigurement through advocate strategy to enhance of patients' acceptance of facial disfigurement.

4- Establish strategies in the form of workshops to encourage positive interpersonal relations and communication between disfigured people and members of the general population.

C. Nursing research:

1- Further researches are recommended on developing an educational program for disfigured patients to improve competency of

communication skills and reduce negative psychological impact of disfigurement.

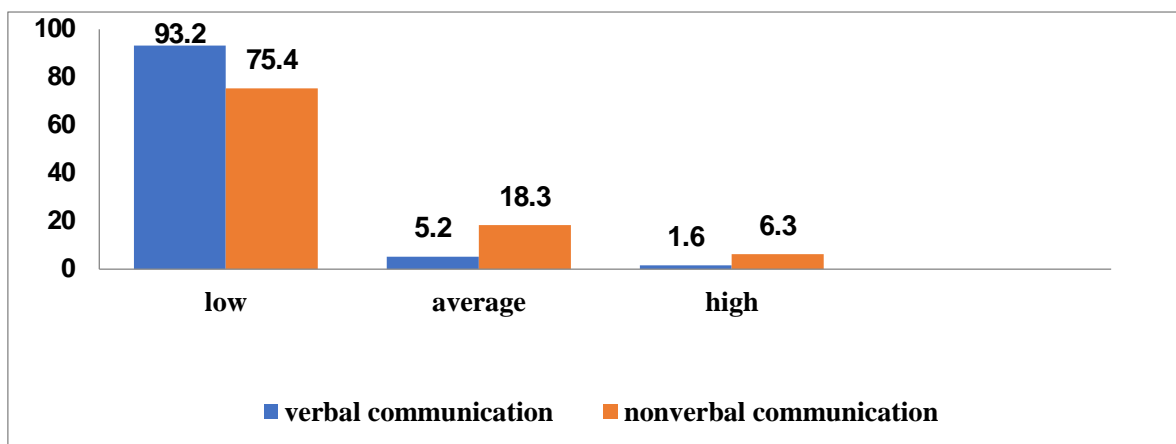


Figure (1): level of competency of verbal communication skills and nonverbal communication skills among facially disfigured patients according to cutoff point of (CSRS and NIS-SR). N=191

Table (1): Correlations between communication, perception, social stress, self-esteem, stigma, social impairment and perception

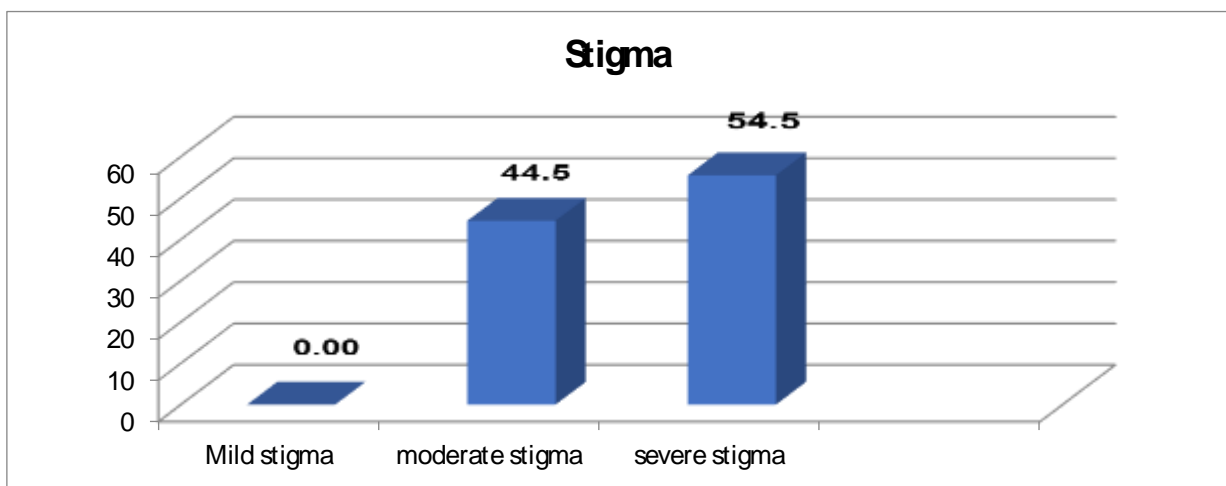


Figure (2): Level of personalized social stigma regarding disfigurement among facially disfigured patients according to cutoff point of (SSQ). N=191

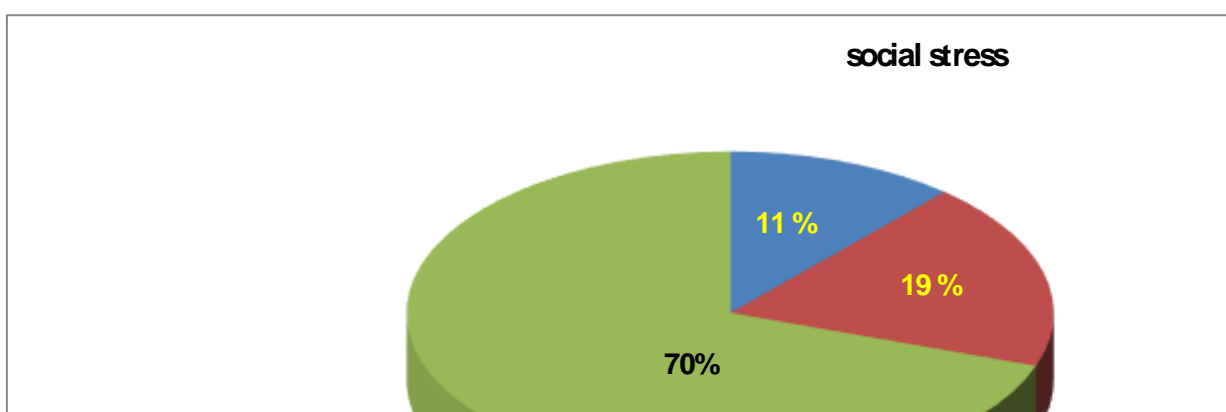


Figure (3): Ranking of social stress among facially disfigured patients according to cutoff point of (CSPS). n=19

Items	Social stress		Self esteem		Stigma		Social impairment	
	r		r	P	r	P	r	
Social stress	-							
Self esteem	.216**	.003	-	-				
Stigma	.373**	.000	.216**	.003	-	-		
Social impairment	.407**	.000	.191**	.008	.531**	.000	-	
Perception	.386**	.000	.255**	.000	.534**	.000	.638**	.000
Verbal communication	.238**	.001	.122	.093	.252**	.000	.172*	.017
Nonverbal communication	.278**	.000	.118	.103	.321**	.000	.311**	.000

* Significant correlation
Significant P value < 0.05

** Highly significant correlation
r pearson correlation coefficient

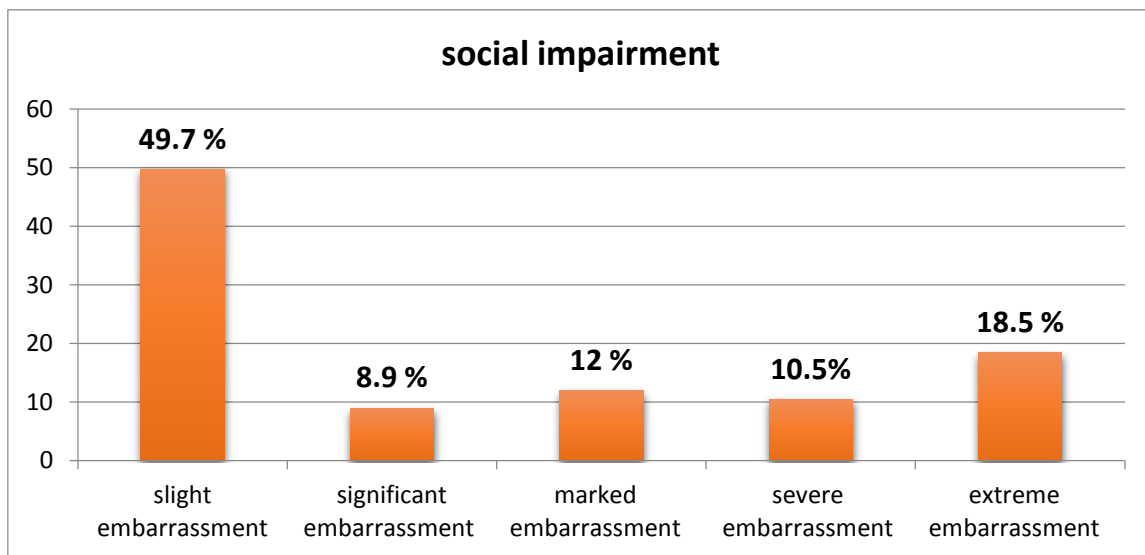


Figure (4): Ranking level of social impairment evaluation among facially disfigured patients (n=191)

Table (2) Correlations between nonverbal communication skills, perception and verbal communication.

item	Verbal communication		Perception	
	r	P	r	P
Verbal communication	-	-	-.109*	.132
Non-verbal communication	.521**	.000	-.174*	.016

* Significant correlation
Significant P value < 0.05

** Highly significant correlation
r pearson correlation coefficient

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