Perception of Shame in the Plastic Surgery Field

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INTRODUCTION
As a noun, shame is defined as “a condition of humiliating disgrace or disrepute” and as a verb, it means “to force (someone) to act in a specified way by causing feelings of shame or guilt.” The term refers to an affective reaction that occurs after a shortcoming or impropriety is publicly exposed (which is disapproval).
Essentially, it is a powerful emotion that occurs because of negative events, such as experiencing mistreatment or making mistakes. It has been called many things, such as the unspeakable, the elephant in the room, and the soul-eating emotion, which we have all experienced at some point in our lives.

Background: Doctors and postgraduate students, especially those in the surgical field, face a highly stressful environment and are exposed to various emotions that have been studied, but the concept of shame-based learning (SBL) is still undergoing investigation, especially in the field of plastic surgery. SBL is a teaching method in which an instructor instills a sense of shame in the student, which may cause depression, anxiety, aggression, and poor job performance, leading to burnout, mental health illness, substance abuse, and suicide.

Methods: From March to May 2022, two cross-sectional electronic surveys were conducted for residents and consultants in Saudi Arabia, respectively, which used a validated questionnaire to assess SBL.

Results: Among the 70 responses received (29 residents and 41 consultants), 75.9% of the residents and 80.5% of the consultants were shamed. For residents, a wrong answer was the most common trigger for shame (44.8%), and the operating room was the most common place for it (51.7%). Losing self-confidence was the most common result of shaming (37.9%) and (41.4%) dealt with it by keeping it to themselves. Although 27.6% of residents stated that they had no negative effect, 20.7% stated that they were motivated. There are consultants who practice shaming directly or indirectly (65.9%), while some agreed that it is not necessary (80.5%).

Conclusions: Although both groups agreed that SBL is unnecessary for the field and will not be practiced in the future, most residents and consultants experienced shame. The negative impact of SBL has several effects on the trainer, the teaching environment, and patient care.

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the ones on plastic surgery done in Canada, the prevalence was 78% for the attending surgeons and 67% for the trainees.\textsuperscript{10,12,19} It has been observed that trainees often exhibit maladaptive coping strategies because of shame, including depression, anxiety, aggression, and poor job performance, which may lead to burnout, mental illness, substance abuse, and suicide; especially in surgical training, which is recognized as having higher rates of sham- ing, harassment, and abuse.\textsuperscript{9,10}

This study aims to evaluate the prevalence of SBL and its impact among mentors and residents in the Saudi plastic surgery residency program, since no study has been conducted in this regard except for those in the Canadian plastic surgery residency programs.\textsuperscript{12}

METHODS

A review of relevant literature and two studies conducted in the same field led to the development of a questionnaire for the study that included 13 questions for plastic surgery residents in Saudi Arabia and 14 questions for the plastic surgery consultants in Saudi Arabia.\textsuperscript{10,12} All questions were closed-ended. The first section of the questionnaire collected demographic information as well as information regarding current training status or years in practice, while the second section included inquiries related to SBL. The questions related to SBL were drawn from existing, validated shame inventories. According to the existence of the plastic surgery residency program, geographical regions were divided into central and western. The plastic surgery residents and consultants participated in the two web-based surveys from March 2022 to May 2022.

The statistical analysis was performed using R v 3.6.3. Counts and percentages were used to summarize categorical variables. To summarize continuous variables, the mean, ± SD, and median (IQR) were calculated based on normality testing. Moreover, the chi-square test of independence was used to assess the association between categorical variables. The hypothesis testing was performed at the 5% level of significance.

RESULTS

Residents

The sample included 29 residents (58.6% men and 41.4% women), and the response rate was 60.4%. Respondents aged 26–30 years constituted 82.8% of the study sample, while those aged 20–25 and 31–35 years constituted 6.9% and 10.3%, respectively. More than three-quarters of the respondents were from the central region (79.3%), while the remaining (20.7%) were from the western region. Among the respondents included in the study, 27.6% and 20.7% were in their first and second years of training, respectively. Furthermore, approximately one-quarter of the respondents were in their fifth and sixth years of training (24.1%) (Table 1). (See figure, Supplemental Digital Content 1, which shows responses to shame inventory questions, http://links.lww.com/PRSGO/C221.)

Table 1. Descriptive Statistics for the Included Residents

| Characteristic         | [ALL], n (%) | N = 29 |
|------------------------|--------------|--------|
| Age                    |              |        |
| 20–25                  | 2 (6.90)     |        |
| 26–30                  | 24 (82.8)    |        |
| 31–35                  | 3 (10.3)     |        |
| Sex                    |              |        |
| Female                 | 12 (41.4)    |        |
| Male                   | 17 (58.6)    |        |
| Training region        |              |        |
| Central                | 23 (79.3)    |        |
| West                   | 6 (20.7)     |        |
| Years of training      |              |        |
| First                  | 8 (27.6)     |        |
| Second                 | 6 (20.7)     |        |
| Third                  | 4 (13.8)     |        |
| Fourth                 | 4 (13.8)     |        |
| Fifth                  | 4 (13.8)     |        |
| Sixth                  | 3 (10.3)     |        |

Data were summarized using counts and percentages.
the demographic characteristics of respondents and exposure to shame.

**Consultants**

All plastic surgeons in Saudi Arabia should be registered with the Saudi Commission for Health Specialties as it regulates all medical specialties, including the residency and fellowship programs. The plastic surgery residency program has three branches, namely, the central, western, and eastern regions; the eastern one was re-established 2 years ago. Furthermore, there are around 60 academic/teaching plastic surgeons in the central and western regions (Table 3).

The study included 41 consultants, and the response rate was 68.3%. The sample represented various age groups, with consultants aged 36–40 years representing one-third of the respondents. Consultants aged 31–35 years represented 19.5% of the sample, while those aged 41–45 represented 17.1%. Furthermore, men accounted for 82.9% of the sample, and women for 17.1%. Nearly two-thirds of the consultants were from the central region (68.3%). Regarding years of experience, over half of the consultants had only 1–5 years of experience, and 14.6% had 6–10 years of experience (Table 4).

**Table 2. Association between Demographic Characteristics and SBL**

| Characteristic          | Exposure to Shame | P Overall |
|-------------------------|-------------------|-----------|
|                         | No, n (%)         | Yes, n (%)|           |
| Age                     |                   |           |           |
| 31–35                   | 8 (19.5)          | 41        |
| 36–40                   | 13 (31.7)         |           |
| 41–45                   | 7 (17.1)          |           |
| 46–50                   | 3 (7.32)          |           |
| 51–55                   | 3 (7.32)          |           |
| 56–60                   | 4 (9.76)          |           |
| 61–70                   | 3 (7.32)          |           |
| Sex                     |                   |           |           |
| Female                  | 7 (17.1)          | 41        |
| Male                    | 34 (82.9)         |           |
| Training region         |                   |           |           |
| Central                 | 28 (68.3)         | 41        |
| East                    | 3 (7.32)          |           |
| West                    | 10 (24.4)         |           |
| Years of training       |                   |           |           |
| First                   | 23 (56.1)         | 41        |
| Second                  | 6 (14.6)          |           |
| Third                   | 4 (9.76)          |           |
| Fourth                  | 3 (7.32)          |           |
| Fifth                   | 4 (9.76)          |           |
| Sixth                   | 1 (2.44)          |           |

Data were summarized using counts and percentages.
A majority of the residents and consultants in our study have been shamed, and most of the residents have been shamed by the consultants. Our results regarding the exposor to shame were approximately higher than those of the study by Boehm et al., which showed comparisons to our study of residents in Canada versus Saudi Arabia (67%–75.9%) and the attending versus consultant (78%–80.5%). According to the results of our study, the most common place where shame occurred was the operating room, while in the previous studies, it is apparently the place that is associated with technical skills and knowledge.

SBL has a negative impact, which may lead to a reduction in seeking feedback and the reaction to it. According to the result of our study, one-third of the respondents lost confidence because of the shaming event, and the literature indicates that SBL has a negative impact on an individual’s mental health, leading to burnout depression, anxiety, poor self-confidence, substance abuse, and suicide. The extant literature includes a study done in Saudi Arabia on emotional intelligence and burnout in plastic surgery residents. Findings revealed that the burnout rate among the residents was 37.9% with 72.4% of the residents reporting a high level of emotional exhaustion and 41% reporting high depersonalization. This leads the researchers to consider the relationship between these factors and SBL and the need to study it.

Additionally, SBL is strongly associated with a tendency to withdraw and hide, ignore the problem, deny responsibility, and respond with anger. The feeling of guilt is associated with reaching out to others, taking responsibility, making systematic improvements, and gaining additional expertise.

However, only 20% of the respondents were motivated by shame, which is lower than that reported in the study by McMains et al., which found that 57.4% of respondents were motivated by shame in order to motivate internal reflection and self-improvement.

There were nearly a quarter of the respondents who mentioned that the shaming event had no negative effect, which is similar to the results of the study by Boehm et al. on plastic surgeons, while McMains et al. demonstrated a higher result at 41.0% in otolaryngology-head and neck surgery. However, two-thirds of the respondents mentioned that they would not practice SBL in the future as opposed to 10.3% who would practice it.

One-fifth of the respondent consultants mentioned that shame is necessary in their field, as compared with the study by Boehm et al., which reported 9%

Approximately one-third of the respondent consultants instill shame in the trainees, and nearly 50% of them instill shame or guilt by questioning the trainees’ level when they make mistakes or give the wrong answer to a knowledge question. Despite most of the respondent consultants acknowledging that shame is not necessary, they still shame the trainees, possibly because they note that some of the trainees are motivated by shame (20%).
Fig. 2. Result of the shaming event.

Fig. 3. Association between being shamed and years as a consultant.
Does the Feedback Solve It?

There is evidence in the literature that is supportive of the nonthreatening method of evaluation, which allows the evaluator to provide very informative feedback without practicing SBL.\(^6\) Furthermore, in order for the feedback to be more effective and to improve the response of learners, it should be focused and address the actions and behaviors that the learner can change, rather than addressing the individual as a whole.\(^{33-40}\) The feedback should focus on the task and its technique rather than on the individual who is performing the task, which is more effective than praising or punishing.\(^{50}\)

The feedback that threatens the learner’s self-esteem will decrease the effectiveness of the feedback.\(^{45}\) In turn, this will lead to an increase in avoidance and a higher rate of quitting the task.\(^{40,51}\) To prevent this, feedback should be neutral with nonjudgmental language, which will help to decrease the shame responses.\(^{52,53}\) Additionally, the evaluator should assist learners in reflecting on their emotional responses following the feedback.\(^31\) It will encourage them to interpret the feedback at the task level, thereby preventing shame and adhering to its primary goal of improving performance.\(^{45,54}\)

Apart from the feedback, the rules and regulations regarding the health practitioner’s rights as well as psychological support should be clarified and applied. Therefore, the Saudi Commission for Health Specialties established a program called Daenm, which includes psychiatrists who provide confidential psychological consultation to health practitioners or trainees of the postgraduate programs of the Saudi Commission for Health Specialties.

There are not a large number of plastic surgery residents participating in our study, since our program is not old and the organizers are focusing on quality, not quantity. Additionally, the identity of the participants is concealed to make sure that the survey is anonymous. However, we believe that our study is strong since we used a validated SBL questionnaire.

CONCLUSIONS

We found that the majority of residents and consultants in our study had been shamed and practice shaming. It seems that it is transmitted from one generation to another, but by acknowledging and understanding the sequences of the shame and improving the teaching environment, the number can be decreased and the quality of training can be improved.

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