

Perceived Social Support, Body Image Satisfaction, and Post-Traumatic Growth in Burn Survivors

Rameen Babar and Mahira Ahmad

Kinnaird College for Women

In our society, burn incidents are everyday news; these incidents carve many physical, emotional and mental strains permanently on victim's health. Limited literature in reference to Pakistani culture is available as to how these incidents impact the well-being of individuals and what factors contributes to the post traumatic growth of survivors. This study aims to examine the relationship between Perceived social support, Body image satisfaction and Post-traumatic Growth in Burn survivors. It further intends to identify the predictors of Post-traumatic Growth as well as if there is any significant gender difference between study variables. A purposive sample of 80 burn survivors was taken from the hospital. Data for study was collected by using Multidimensional Scale of Perceived Social Support (MSPSS), Body Image States Scale (BISS), and Posttraumatic Growth Inventory (PTGI). Results revealed that perceived social support shared a positively significant relationship with body image satisfaction and post-traumatic growth. Along with it, perceived social support was also found to predict post-traumatic growth in burn survivors. Results also determined that female burn survivors perceived to receive more social support as compared to men. This research has scope in health psychology, and information gathered through it widens the knowledge regarding post traumatic growth of burn survivors.

Keywords. Burn survivors, perceived social support, body image satisfaction, post-traumatic growth

Burn injuries are unanticipated accidents and leading cause of morbidity worldwide. A large number of populations suffer burn injuries in Pakistan but most of those cases go unreported. As per a recent survey in 2021, only 76 burn cases were reported, in which

Rameen Babar and Mahira Ahmad, Department of Psychology, Kinnaird College for Women, Lahore, Pakistan.

Correspondence concerning this article should be addressed Rameen Babar, Department of Psychology, Kinnaird College for Women, Lahore, Pakistan. Email: Rameenbabar@gmail.com

72% were accidental and 28% were criminal activity ([Depilex Smileagain Foundation, 2022](#)). According to the WHO, burns are injuries, “to the skin or other organic tissue primarily caused by heat or due to radiation, radioactivity, electricity, friction or contact with chemicals” ([World Health Organization, 2018](#)). These incidents along with effecting individual mentally and physically, also renders his social interactions specifically if injury is more profound on face as its marks one identity and make them sensitive regarding people’s behavior and the support they receive from them.

Perceived social support is individual’s take on the level and quality of support that they are receiving from the society and whether that support meets the required standard or not ([Ahmed & Gemeay, 2017](#)). Intentions as well as attitude of one providing support also influence ones perception and recovery post-traumatic incident. Burn survivors are influenced by same sociocultural norm about appearance as other normal people are but it is heightened by the fact that they have negative feelings associated with their appearance. Due to which they are likely to indulge in avoidance and restraint strategies in order to prevent societal rejection and along the way making interventions for social functioning and positive body image a definitive goal for survivor’s rehabilitation ([Al-Ghabeesh, 2021](#)). Body image is “the mental picture one forms of his body as a whole, including its physical characteristics and one’s attitudes toward these characteristics” ([American Psychological Association, 2018](#)). Body image satisfaction is individual’s level of satisfaction with the mental picture he has of his body wholly. According to Newell’s cognitive behavioral model, the psychological framework of disfigured individual centers on fear of altered body as well as the reaction of people towards it and the level of support they receive ([Newell, 1991](#)). A phenomenological research was conducted on burn survivors with superficial to deep facial burns aged between 25-55 years. It aimed to study the effect of burn injury on survivor’s view of his body and his psychosocial adjustment and the challenges faced. Results showed participants’ early struggle with adjustment and relationship with their body following injury. Significant amount of past trauma was also observed in participants. However, with use of coping strategies and positive adjustment participants reported significant post-traumatic growth with feeling optimistic and altruistic, which was fostered through familial and clinical support ([Al-Ghabeesh, 2021](#)).

Post traumatic growth (PTG) is a positive change experienced by individuals psychologically, as a consequence of coping with extremely challenging life situations ([Jayawickreme et al., 2020](#)). Five forms of PTG have been highlighted ([Tedeschi & Calhoun, 2004](#)):

increased appreciation of life coupled with new priorities; increased personal strength, acknowledgement of new path or life possibilities, spiritual growth. A study was conducted on Pakistan's burn women survivors to study level of social support provided and what coping strategies they use to overcome psychological distress and enhance post-traumatic growth. Results revealed the existence of severity of psychological distress and PTSD symptoms in 23% and 20% of sample respectively. Post-traumatic growth was reported when participants used Emotional focused coping which incorporated praying, emotional discourse and drug usage (Idrees et al., 2017).

The purpose of this study is to identify the level of perceived social support, body image and post traumatic growth in burn victims. This study will help in highlighting how perceived social support play its part in initiating post traumatic growth, also it can provide a guideline for victim's family and friends regarding the significance of their support. It will also point towards individual's feelings and perceptions about their current body image and how that perception impacts on Post traumatic growth. There scarce literature present on post traumatic growth in relation to burn survivors, present study will aid in contributing to that gap too.

Hypotheses

1. Perceived social support and Body image satisfaction are related to post traumatic growth in burn survivors.
2. Post traumatic growth in burn survivors is predicted by Perceived social support and Body image satisfaction.
3. There exist gender differences between Perceived social support, Body image satisfaction and post-traumatic growth in Burn survivors.

Method

Research design

A correlational research design was employed for this quantitative study.

Participants

A purposive sampling strategy was used for the selection of burn survivors. A total of 80 burn victims were taken for the present study. The age range determined had ($M = 31.8$, $SD = 13.8$). All participants were recruited from Jinnah Burn and Reconstructive Surgery Center,

over the time span of 3 months. Standardized tools were used to collect data. The questionnaires were self-administered. Before giving them the questionnaires, participant's consent was taken and they were given the right to withdraw from research if anytime when they wanted to. Mostly participants took 10 minutes to calmly fill out questionnaires.

Inclusion Criteria

- Second degree, third degree and forth degree burn victims were included.
- Only institutionalized burn victims were taken.

Exclusion Criterion

- First degree burn victims were not included.
- Victims diagnosed with any other major physical disability that is not caused by burn incident were not included.

Victims diagnosed with major psychological disorder prior to burn incident were not included.

Instruments

Self-designed Demographic Questionnaire

It was developed to elicit information regarding individual's gender, age, education, year and month of burn, degree of burn, percentage of burn and medical history prior to burn incident.

The Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988)

Urdu version of Zimet et al. (1988) scale translated by Jibeen (2010) was used to assess participant's perceived social support. It consisting of 12 items, and has three subscales i.e. support from family, friends and significant others. For this sample, scales reliability was 0.87. As for subscales, significant others had reliability of 0.86, family of 0.70, and friends of 0.89.

Body Image States Scale (BISS) (Cash et al., 2002)

An Urdu version of Cash et al. (2002) scale developed by Manawar, Hasnain and Kausar in 2014 was used to assess participant's body image. It consists of 6 items. For this sample, scales reliability was 0.62 and is low.

The Posttraumatic Growth Inventory (PTGI) (Tedeschi & Calhoun, 1996)

An urdu version of [Tedeschi and Calhoun \(1996\)](#) scale translated by Saghir and Kausar (2007) was used to assess participant's post-traumatic growth. It consists of 21 items. It has 5 subscales. For this sample, scales reliability was 0.92. As for subscales, Relating to others reliability was 0.83, New possibilities 0.77, Personal strength 0.78, Spiritual change 0.42 and Appreciation of life's reliability were 0.48.

Procedure

Initially, research proposal was approved by institutional review board (IRB). Later on, authors of scales were contacted and their permission to use scales in the research was taken. Afterwards, different burn centers and organizations that catered burn survivors were approached and their approval was sorted. As permission was only granted by Jinnah burn & reconstructive surgery center therefore data was collected from there only. All ethical consideration like permission from authors to use their tools, confidentiality of participant, briefing and debriefing of participants, right to withdraw from research were followed throughout the data collection process and later on as well.

Ethical Considerations

All required ethical considerations like permission form from institutes, authors and participants were kept in taken. Only willing participants were included, they too were given full choice to withdraw if they wanted at any point in research. Their provided information was kept confidential. Informed consent was taken also they were briefed about the nature and purpose of study before starting the research. It was kept in mind that it is a sensitive topic and can lead to psychological harm. Victims were also debriefed regarding the prevalence of such incidents and regarding their condition that it is common to feel hopeless, disappointed and self-conscious in stating days but as time progresses and from societal support they get control of their life again. Counseling sessions were arranged for re-traumatization.

Results

Pearson Product Moment Correlation was used to determine the relationship between perceived social support (measured by MSPSS),

body image satisfaction (measured by BISS), and post-traumatic growth (measured by PTGI). Post traumatic growth predictors were checked through linear hierarchical regression. ANOVA was run to determine gender differences between study variables.

The demographics used in this respective study are as follows.

Table 1: *Descriptive Statistics of Demographic Characteristics of Sample (N = 80)*

Variables	f (%)	M(SD)
Gender		
Male	28(35%)	
Female	52(65%)	
Age		31.79 (13.82)
Education		11.26(3.09)
Percentage of body Burn		31.81 (11.47)
Duration of Burn (in months)		2.61 (1.21)

According to the [Table 1](#), study population consisted of 28 males and 52 females. Participants had a mean age of 32 years, and mean education till 11th grade. Average percentage of burn experienced by them was 32% and it had been 3 months since they had their burnt incident.

Table 2: *Interco Relation Among Perceived Social Support, Body Image Satisfaction and Post Traumatic Growth of Burn Survivors*

Variables	Age	Edu	% of Burn	Dur. (months)	MSPSS	BISS	PTGI	M	SD
Age	-	.006	-.093	-.122	-.086	-.283*	.092	31.79	13.81
Edu		-	.027	-.046	.078	-.157	-.074	7.53	3.57
% of Burn			-	-.149	.403***	.087	.101	31.81	11.47
Dur.(month)				-	-.105	-.201	.054	2.61	1.21
MSPSS					-	.307**	.342**	4.67	1.03
BISS						-	-.064	4.92	.95
PTGI							-	2.87	.80

Note. (* $p < 0.05$, ** $p < 0.01$) ($N = 80$) Edu = Education; Dur. = Duration; MSPSS: The Multidimensional Scale of Perceived Social Support; BISS = Body Image State Scale; PTGI = Posttraumatic Growth Inventory, M = Mean, SD = Standard deviation.

According to [Table 2](#), perceived social support shared a significantly positive relationship with percentage (%) of burn ($r = .403$, $n = 80$, $p < 0.001$); body image satisfaction ($r = .307$, $n = 80$, $p < 0.01$) and post-traumatic growth ($r = .342$, $n = 80$, $p < 0.01$). Depicting that individual's receive more support from their

loved ones when they have incurred a higher percentage of burn. Along with it, burn survivors showed increased body image satisfaction and higher post-traumatic growth when they received increased societal support.

However, body image shared a significantly negative relationship with age ($r = -.283$, $n = 80$, $p < 0.01$) and a non-significantly negative relationship with post-traumatic growth ($r = -.064$, $n = 80$, $p = 0.06$).

Table 3: Shows Linear Hierarchical Regression Predicting Post-Traumatic Growth in Burn Survivors ($N = 80$)

Predictors	Post-traumatic Growth Inventory	
	ΔR^2	β
Step 1	.12**	
MSPSS		.34**
Step 2	.15	
BISS		-.19

Note. (** $p < 0.01$) (MSPSS: The Multidimensional Scale of Perceived Social Support; BISS = Body Image State Scale; PTGI = Posttraumatic Growth Inventory).

In Table 3, a hierarchal linear regression was run to determine predictors of Post-traumatic Growth. In block 1, total of perceived social support scale was added and the model was determined to be significant ($R^2 = .12$, $F(1, 78) = 10.36$, $p < .001$). Perceived social support made a significant contribution to this prediction. In block 2, the effect of perceived social along with total of body image scale were added and model was determined to be significant ($R^2 = .15$, $F(2, 77) = 6.73$, $p < .001$). Block 2 did not remain significant when effect of perceived social support was excluded and only body image prediction was seen ($R^2 = .15$, $F(1, 77) = 2.85$, $p = .10$). Hence, it is determined that perceived social support predicts Post-traumatic Growth.

Table 4 shows ANOVA suggests that female burn survivors perceive to receive more social as compared to males. However, no significant difference in terms of internalized stigmatization and post-traumatic growth was seen between males and females.

Table 4: Shows the Mean (Mean), Standard Deviation (SD), ANOVA Score (F) and Significance Value (p) of Perceived Social Support, Body Image Satisfaction and Post-Traumatic Growth Among Male and Female Burn Survivors (N = 103)

Variables	Male		Female		F	p
	M	SD	M	SD		
MPSS	4.62	1.60	5.08	.88	4.64	.03
BISS	4.50	1.21	4.76	.98	1.21	.27
PTG	2.94	.65	2.83	.87	.35	.56

Note. (* $p < 0.05$) (N = 80, n = 28, n = 52) Note: MSPSS: The Multidimensional Scale of Perceived Social Support; BISS = Body Image State Scale; PTG = Post traumatic Growth.

Discussion

The purpose of this research was to investigate the relationship between perceived social support, body image satisfaction and post-traumatic growth. Along with studying the predictors of post-traumatic growth and the gender differences between study variables. Present study determined that when the percentage of burn injury is more burn survivors perceive to receive more social support from society. The results are in line with prior research that when individuals have increased percentage of burn their self-esteem is severely affected, therefore they are provided more support from the loved ones and society so that their confidence in themselves can be rebuilt (Gorbani et al., 2020; Waqas et al., 2018). Furthermore, another finding of present study revealed an inverse relation between age and body image satisfaction with is supported by prior research. According to which as burn survivors age and their burn scars also mature, and they become more aware of discrepancy between their body reality, body presentation and body reality (King, 2018), which consequently enhances their body image dissatisfaction as they age (Aiquoc et al., 2018).

Current research further presents that when burn survivors are provided high support from society they have increased body image satisfaction and increased post-traumatic growth. The result corresponds with prior study that mentioned first 6 months post-burn crucial in the individual's recovery period and highlighted the significance of social support in helping burn survivor overcome his feelings of being different from others and accepting his change in appearance by dismisses his feeling of suffering (Ajoudani et al., 2018). Furthermore, Pakistan being a collectivistic community just like Iran relies too much upon the relationships and support from society. So when perception of social support is high it increases

individual's self-esteem and confidence on his appearance, hence promoting their rehabilitation (Duprey et al., 2019). Another study in similar lines concluded that, when friends and family of burn survivor is critical of his looks and disfigurement post incident, it acts as a hindrance towards him developing a positive body image and being an active member of society due to his self-consciousness (King, 2018).

Along with it, present research concluded perceived social support to be a predictor of post-traumatic growth. Results are similar to a recent indigenous research that found that Pakistan being a family oriented society deems social support as a defense mechanism against the stressful situation that is surviving a burn injury and along the line predicting post-traumatic growth in the survivors (Putri & Pohan, 2020; Waqas et al., 2018). Additionally, it supports social- cognitive processing model of adjustment to trauma which postulates perceived social support as a significant component of psychological adjustment for burn survivors (Ajoudani et al., 2019).

In addition to that it was proposed that gender difference exist among burn survivors in regards to study variables. Results revealed that No significant gender difference was report in term of body dissatisfaction and post-traumatic growth in burn survivors which is in correspondence to past research that found no gender differences in post-traumatic growth of burn survivors (Ajoudani et al., 2019). However, it is in contrast with prior study that determined females to experience more body image dissatisfaction as compared to males post-burn incident (Al Ghriwati et al., 2017).

Conclusion

Research results revealed perceived social support to share a positively significant relationship with body image and post-traumatic growth. Along with it, perceived social support was also found to predict post-traumatic growth. Results also determined that female burn survivors perceived to receive more social support from.

Limitations

One limitation was that data was only collected from one institute i.e. Jinnah burn and reconstructive surgery center Lahore, that makes it difficult for study to be generalizable on other Burn Centers patients'. Another one was that Post –traumatic Growth being a continuous process need to be studied in longitudinal study as well.

Implication

The present study will prove to be constructive in designing intervention or counselling programs for individuals as well as groups. Psychological adjustment will be fostered in patients with the help of these counselling and self-help programs by inculcating optimistic approach in them. It also provides significant implications for the provision of psychological intervention for burn victim survivors. It has scope in health psychology and is valuable to it also paves path for upcoming researches in medicinal as well as psychological sciences.

Suggestion

Future studies can incorporate textual analysis method (Uludag, 2024) in order to further investigate psychological issues that burn survivors experience.

References

- Ahmed, S., & Gemeay, E. (2017). Perceived social support and medication compliance among patients with psychiatric disorders. *International Journal of Novel Research in Healthcare and Nursing*, 4(3), 157-169.
- Aiquoc, K. M., Dantas, D. V., Dantas, R. A. N., Costa, I. B., Oliveira, S. P. D., Lima, K. R. B., Sarmento, S. D. G., & Ribeiro, M. D. C. D. O. (2018). . *Journal of Nursing*, 13(4), 952-9 Evaluation of satisfaction with body image of burned patients.
- Ajoudani, F., Jafarizadeh, H., & Kazamzadeh, J. (2019). Social support and posttraumatic growth in Iranian burn survivors: The mediating role of spirituality. *Burns*, 45(3), 732-740. <https://doi.org/10.1016/j.burns.2018.10.013>
- Ajoudani, F., Jasemi, M., & Lotfi, M. (2018). Social participation, social support, and body image in the first year of rehabilitation in burn survivors: A longitudinal, three wave cross lagged panel analysis using structural equation modeling. *Burns*, 44(5), 1141-1150. <https://doi.org/10.1016/j.burns.2018.03.018>
- Al-Ghabeesh, S. H. (2021). How does coping strategies, social support, and mindfulness improve the psychological well-being of Jordanian burn survivors? A descriptive correlational study. *Burns*. <https://doi.org/10.1016/j.burns.2021.04.012>
- Al Ghriwati, N., Sutter, M., Pierce, B. S., Perrin, P. B., Wiechman, S. A., & Schneider, J. C. (2017). Two-Year Gender Differences in Satisfaction with Appearance after Burn Injury and Prediction of Five-Year Depression: A Latent Growth Curve Approach. *Archives of Physical Medicine and Rehabilitation*, 98(11), 2274-2279. <https://doi.org/10.1016/j.apmr.2017.04.011>

- American Psychological Association. (2018, April 19). *APA Dictionary of Psychology*. Dictionary.apa.org. <https://dictionary.apa.org/body-image>
- Cash, T., Fleming, E., Alindogan, J., Steadman, L., & Whitehead, A. (2002). Beyond Body Image as a Trait: The Development and Validation of the Body Image States Scale. *Eating Disorders*, 10(2), 103-113. <https://doi.org/10.1080/10640260290081678>
- Depilex Smileagain Foundation, (2022). *DSF-Annual-Report-2021* [Review of *DSF-Annual-Report-2021*]. Depilex Smileagain Foundation. <https://depilexsmileagain.com/wp-content/uploads/2022/03/DSF-Annual-Report-2021.pdf>
- Duprey, E. B., Oshri, A., & Liu, S. (2019). Childhood maltreatment, self-esteem and suicidal ideation in a low SES emerging adult sample: The moderating role of heart rate variability. *Archives of Suicide Research*, 23(2), 333-352. <https://doi.org/10.1080/13811118.2018.1430640>
- Gorbani, A., Rezaiee Moradali, M., & Shabanloei, R. (2020). Relationship between self-esteem and perceived social support in burn patients in Sina Hospital of Tabriz. *Nursing Open*, 8(3), 1194-1200. <https://doi.org/10.1002/nop2.734>
- Idrees, S., Faize, F. A., & Akhtar, M. (2017). Psychological Reactions, Social Support, and Coping Styles in Pakistani Female Burn Survivors. *Journal of Burn Care and Research*. <https://doi.org/10.1097/BCR.0000000000000525>
- Jayawickreme, E., Infurna, F. J., Alajak, K., Blackie, L. E. R., Chopik, W. J., Chung, J. M., Dorfman, A., Fleeson, W., Forgeard, M. J. C., Frazier, P., Furr, R. M., Grossmann, I., Heller, A. S., Laceulle, O. M., Lucas, R. E., Luhmann, M., Luong, G., Meijer, L., McLean, K. C., & Park, C. L. (2020). Post-traumatic growth as positive personality change: Challenges, opportunities, and recommendations. *Journal of Personality*, 89(1), 145-165. <https://doi.org/10.1111/jopy.12591>
- King, I. C. C. (2018). Body image in paediatric burns: A review. *Burns & Trauma*, 6(1). <https://doi.org/10.1186/s41038-018-0114-3>
- Newell, R. (1991). Body image disturbance: Cognitive-behavioural formulation and intervention. *Journal of Advanced Nursing*, 16, 1400-5.
- Putri, E. P., & Pohan, L. D. (2020). Optimism and Perceived Social Support as Predictors of Posttraumatic Growth Among Emerging Adults After the Death of a Parent. *Joint Proceedings of the 3rd International Conference on Intervention and Applied Psychology (ICIAP 2019) and the 4th Universitas Indonesia Psychology Symposium for Undergraduate Research (UIPSUR 2019)*. <https://doi.org/10.2991/assehr.k.201125.033>
- Tedeschi, R. G. & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15, 1-18. https://doi.org/10.1207/s15327965pli1501_01

- Tedeschi, R. G., & Calhoun, L. G. (1996). The posttraumatic growth inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, 9(3), 455-471. <https://doi.org/10.1002/jts.2490090305>
- Uludag, K. (2024). Exploring the Association Between Textual Parameters and Psychological and Cognitive Factors. *Psychology Research and Behavior Management*, 1139-1150.
- Waqas, A., Turk, M., Naveed, S., Amin, A., Kiwanuka, H., Shafique, N., & Chaudhry, M. A. (2018). Perceived social support among patients with burn injuries: A perspective from the developing world. *Burns*, 44(1), 168-174. <https://doi.org/10.1016/j.burns.2017.06.014>
- World Health Organization. (2018, March 6). *Burns*. Who.int; World Health Organization: WHO. <https://www.who.int/news-room/fact-sheets/detail/burns>
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52(1), 30-41. https://doi.org/10.1207/s15327752jpa5201_2

Received 25 October 2023

Revision received 23 January 2025