

Interpersonal Relationships, Psychological Effects, and Coping Strategies Among Acid Burn Female Victims

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The present research was aimed at exploring the interpersonal relationships, psychological effects, and coping strategies among female acid burn victims through in-depth interviews. A sample of six female acid burn victims was collected from two cities of Pakistan that is, Lahore and Jhelum. Research was conducted in two phases. First phase comprised of brainstorming sessions and development of interview guideline. During second phase, interviews were conducted with all acid burn victims. Mean age of the sample was 32.6 years. Ten themes emerged through thematic analysis including effects of acid attacks on family relations, attitudes of extended family, role of friends, causes of attacks, psychological effects, physical effects, facial disfigurement and body image, people's attitudes towards victims, reactions of victims towards unpleasant concern, and coping strategies. Research was helpful in adding to literature on psychological effects of acid attacks which is an under researched area in Pakistan. It also highlighted the significance of such disturbing social issue which should be brought to the limelight. Findings of the research can be implemented in areas of clinical psychology and psychology of women.

Keywords: Acid burn victims, acid attacks, thematic analysis

Pakistan, along with other South Asian countries, is among the countries with highest rates of acid attacks providing a valid reason to look into the intricacies of this agonizing phenomenon. The numbers of acid burn victims, which researchers call "living corpses", are increasing day by day in different cities of Pakistan with an estimated number of 42 cases of acid attacks during the year 2016 (Acid

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Survivors Foundation, 2016). An acid attack, by definition, is given the name of intimate terrorism in which an individual throws sulphuric, hydrochloric, or nitric acid on another individual with planned intentions resulting in devastating results for the victims and their families for their entire lives ahead (Morrison, 2005).

Disfigurement, particularly the facial disfigurement, has the strongest psychosocial implications for acid burn victims. Burns are defined as injuries to the skin or other organic tissue primarily caused by heat or due to radiation, radioactivity, electricity, friction or contact with chemicals whereas; disfigurement is conceptualized as a condition in which one's appearance is deeply and persistently harmed medically, as from a disease, birth defect or wound (Krishna, 2009). Disfigurement, resulting by an acid attack, is considered the acquired disfigurement which the victims acquire as a trauma (Rumsey & Harcourt, 2004).

Descriptive research, in different countries around the world, has come up with some demographics of acid burn victims in different countries. For example, the sample in study of Guerrero (2012) ranged from 13 to 41 of age, with most affected area as neck and face (98%) followed by the chest (43%), upper limbs (42%), legs (7.4%), and sex organs (1%), and highlighting the incidents as street crime. Similarly, a research by Faga, Mezzetti, Scevola, and Scevola (2012) in Bangladesh came up with the causes of acid attacks as refusal to a lover (66%), punishment (21%), and business competition in case of males (13%), and most affected area was, yet, the face of the victim followed by chest and upper limbs. Junejo (2012) has pointed towards the causality and level of burns in Pakistani male and female populations. A ratio of 6.5 percent suicidal acid burn cases in males as compared to 18 percent in females as well as 1 percent homicidal acid attack in males in comparison to 51.5 percent in females makes acid attack a predominantly female related phenomenon in Pakistan. Research also indicated much higher levels of burns, indicated through Total Body Surface Area, in females as compared to males.

A vast range of psychological effects of these acid attacks and facial disfigurement have been highlighted in the literature. For example, acid burn victims were found to experience social anxiety, avoidance, and depression (Mannan, 2006); shame, stigmatization, and hurtful feelings (Bokhari, 2013); everyday life discrimination (Juwaley, 2012); identity threat due to facial disfigurement (Kostinger & Roth, 2012); facing unwanted attention and curiosity of people (Rumsey & Harcourt, 2004); changes in body image (Grunert, Rusch, & Saner, 2000); as well as loss of confidence in building new relationships (Furness, Garrud, Faulder, & Swift, 2006).

Facial disfigurement is the most disastrous outcome of acid attacks, loss of beauty and disfigurement is the most distressing incident for a woman. Additionally, burn injuries of eyes and diluted eyelids leave the victims with weeks of sleepless nights. Acid attacks result in permanent scars on face and body, dilution and joining of bones, restricted movements of joints and jawbones, and it locks up the chin with breast in most of the cases (Bokhari, 2013). Identity threat, as posed by Jaspal (2012), is evident in facially disfigured individuals hampering their self-esteem and self-efficacy which activates coping strategies in facially disfigured people and make them to deal with it at three different levels including intrapsychic, interpersonal, and intergroup levels.

A very useful model of coping with facial disfigurement had been proposed by Callahan (2004) in which he has described five tasks which are helpful in psychological recovery of the facially disfigured individuals including mourning and realizing the loss which may include loss of physical attractiveness and invincibility, confronting the loss by accepting themselves in their new looks rather than shirking from their reflection, confronting feelings of denial and accepting themselves including the strategies of looking into the mirror, meeting with people, and going outside with their disfigurement, reframing the experience in a more realistic and positive manner, and integrating the experience to incorporate the disfigurement into his or her overall self-concept to lead a better life. Research indicates that most of the acid burn victims tend to use avoidance coping after their victimization (Chandler, Lalonde, & Sokol, 2003) to cope with their threatened identity.

All of the above mentioned psychological effects, resulting from acid attacks, are considered as a life changing incident of the victims making them to cope with their intrapsychic, interpersonal, and intergroup differently at different points after their victimization. Effective coping after victimization can be helpful in minimizing the deleterious effects of disfigurement. A new bulk of knowledge is required to work on coping and relationship building of acid burn victims.

The dilemma about statistics regarding acid attacks in Pakistan is that authority institutions are unable to estimate the exact numbers of violence victims in general and acid burn victims in particular (Mirza, 2011). Punjab is the leading province where these incidents are taking place followed by Sindh. An estimation of occurrence of acid attacks in Pakistan, provided by Acid Survivors Foundation (2016), reported 91 cases in 2011, 71 in 2012, 70 in 2013, 59 in 2014, 59 in 2015, and 42 in 2016. A decrement in such attacks over the period of time

maybe a reaction of highlighting such cases through media or initiation of Acid Control and Acid Crime Prevention Act which was passed in National Assembly of Pakistan in 2010 and has which is criticized for various reservations in its applicability. Amendments were made in Section 332, Act XLV of 1860 by adding the terminologies of disfigures and defaces (to reduce the burn and disfigurement related stigmatization) whereas; penalties for deliberate harm to other through acid were imprisonment for whole life or five hundred thousand rupees fine, or both.

According to another report of Pakistan Ministry of Women Development (2011), 42% women in Pakistan accept violence considering it their fate, 33% feel weak to cope with violent situation, 19% protest against violence and only 4% take some kind of action to get rid of violence against them. The actual purpose of throwing acid is not to give death, but to disfigure women and bring agony in their lives (Mirza, 2011). The age of victimized females through acid thrown incidents range in Pakistan from 14 to 25 years mostly and common causes of incidents reported are jealousy, infidelity, dowry, husband's wish of second marriage, enmity and sexual non-cooperation (Smile Again Foundation, 2010).

Rationale of the Study

Acid attacks and resulting disfigurement, evidently, put a toll on lives of the victims and it consequent psychological issues have been highlighted in past researches as well. There exists a gap in literature on how acid burn facially disfigured victims cope with their conditions keeping in mind that these attacks are not accidental, are intentional, and particularly carried out not to make others dead but to make them miserable for rest of their lives. Similarly, empirical research conducted on acid burn victims have not yet explored the impacts of such attacks and their resulting disfigurement on interpersonal relationships of acid burn victims fully and most of the inferences are drawn from other facially disfigured populations. Current research was, thus, undertaken with a drive to fill the gaps in literature with, particularly, indigenous implications.

Current research was undertaken with an objective of exploring the alteration in interpersonal relationships of acid burn victims taking place after their facial disfigurement when they are deprived of the critical part of their identity. Exploration of nature of psychological effects and resulting coping strategies made other two objectives of the research.

Method

Sample

Sample included six acid burn victims. Age range of the sample was 25- 40 years with a mean age of 32.3 years. Participants of the study belonged to Lahore ($n = 2$), Jhelum ($n = 2$), Islamabad ($n = 1$), and Sialkot ($n = 1$) in which majority of the sample consisted of working women ($n = 5$).

Instrument

Semi structured interviews. The primary tool of the study was semi structured interviews that was conducted with acid burn victims. The interview guideline covered different domains of interpersonal relations. The emphasis of the interview guideline was devising question to probe the interpersonal relationships of acid burn victims before and after their acid attack and facial disfigurement.

Procedure

Initially it was decided that a sample of at least seven individuals will be obtained for current research from different hospitals and acid burn centers through convenient and snowball sampling. After spending three months in Pakistan Institute of Medical Sciences (PIMS), Holy Family Hospital, Burn Unit Shifa International Hospital, Burn Unit Combined Military Hospital Khariyan, Emergency Unit Benazir Bhutto Shaheed Hospital, and Burn Unit Nescom without getting a single case, mode of data collection was changed keeping time constraints in view.

Depilex Smile Again Foundation was contacted to get access to acid burn victims and sample was approached in different times in Jhelum and Lahore. Overall, the study was conducted in following two steps:

Step I - Development of interview guideline. Prior literature on acid burn victims was reviewed and subject matter experts were contacted in order to attain a clear picture of the psychological conditions of acid burn victims with whom they were working. Subject matter experts included the heads of various NGOs and doctors. After getting information from both sources, interview guidelines were developed for exploration of interpersonal relationships, various coping styles, psychological effects, and body image. Questions were devised on indicators of depression, anxiety,

stress, social support, changes in body image and victim's ways to cope with it, reactions on people's concern of disfigurement, families' and friends' response towards victimization, and perception of victims about their social support etc.

Step II - Data collection. Step II of the study was data collection phase in which data was collected from two cities of Punjab Province, which is, Jhelum and Lahore. Data, from each participant, was collected into two sessions. First session was rapport building session and interview was conducted in second session.

Thematic analysis had been conducted to construct themes from data of current study in which Colaizzi's (1978) method of thematic analysis was followed to develop emergent and cluster themes.

Results

Results are comprised of general characteristics of the burnt sample as well as the themes which emerged through thematic analysis of the interview data. Overall, ten themes emerged from the data. These ten cluster themes were arranged into three emergent themes namely; interpersonal relationship, psychological effects, and coping strategies which will be discussed in this section accordingly.

Table 1

Sample Characteristics of Six Acid Burn Victims (N = 6)

Characteristics	f	%
Number of Burn Related Surgeries		
≤ 30	4	66.7
≥ 30	2	33.3
Affected Areas		
Face	6	100
Neck	6	100
Breast	3	50
Torso	2	33.3
Arms	2	33.3
Legs	1	16.7
Type of Acid		
Nitric Acid	2	33.3
Hydrochloric Acid	4	66.7
Total Burn Surface Area (in percentage)		
≤ 10	1	16.7
≤ 20	2	33.3
≤ 30	2	33.3
≤ 40	1	16.7

Table 2
Cluster and Emergent Themes of Interview Data (N = 6)

Cluster Theme	Emergent Theme	Theme Description
1. Effects of acid attack on family relations		This theme highlights the change in interpersonal relationship of acid burn victims after victimization with reference to relationships with immediate family, extended family, friends, and attitudes towards general public concerns.
2. Attitudes of extended family towards acid attack	Interpersonal relationships	
3. Role of friends		
4. People's attitudes towards victims		
5. Psychological distress	Psychological effects	This theme is comprised of psychological effects of disfigurement including distress, changes and concerns of victims about body images, and varying types of affective and behavioral reactions towards other people's concerns.
6. Facial disfigurement and body image		
7. Reactions on unpleasant concern		
8. Religious coping	Coping strategies	This theme encompasses the coping strategies used at different point in time by the victims to handle their agony and relationships.
9. Problem-focused coping		
10. Emotion-focused coping		

Emergent Theme 1: Interpersonal Relationships

Cluster Theme 1 - Effects of acid attack on family relations. This theme encompassed inevitable positive and negative changes in victims' relationship with their immediate families as a result of acid attack. Such incidents tend to make the victims oversensitive in their perceptions about changes in others' behaviors making them to feel everything with greater magnitude. All of the acid burn victims indicated that they felt evident changes (either positive or negative) in attitudes and behaviors of their family members. Positive changes were reflected through instrumental support, encouragement, and emotional support as indicated by a participant that *my siblings used to stay with me in hospital despite of their crucial tasks* (Participant B, L: 62). Similarly; acid burn victims tend to regain their confidence primarily through encouraging family members as depicted by Participant A that *my family encouraged me to meet my relatives otherwise I would have isolated myself* (L: 8).

Negative changes, on the other hand, were either indirect effects of acid attack resulting primarily from lack of resources for treatment or accusation among family members. Lack of monetary resources was something which led to *strange kind of strain and dejection* (Participant F, L: 211). A rare, but significant, aspect of negative changes were seen as accusation on part of family members of one of the participants who was victimized by her husband resulting in arguments between the parents for criticizing each other for her *inappropriate rearing* (Participant C, L: 89).

Cluster Theme 2 - Attitudes of extended family towards acid attack. *My nephew provided me information about the NGOs which were offering free reconstructive surgeries to burn victims resulting in a positive change in my life* (Participant C, L: 59) reflects the importance of informational support to a person in dire need of transformation with minimum resources. The second tier of extended family plays no less significant role in lives of female victims as compared to their immediate families in a collectivist culture like ours. Thus every participant talked about their extended family's positive and negative reactions and its impacts on their personal lives. Not only informational support but monetary provision also tends to be a significant positive indicator of support as stated by one of the participants that *my paternal uncles and aunts supported me to the last extent during my treatment* (Participant A, L: 15).

Suspiciousness was the factor evaluated most negatively by the victims. *When people from your extended family think that you must have done something for which you have been victimized is the most distressing part of victimization* (Participant E, L: 182). Not only hurtful feelings are distressing for the victims and their immediate family members but such situations can also lead to distance between families as stated by Participant D where her father cut off from his sisters for hurting and blaming his already victimized daughter (L: 111).

Cluster Theme 3 - Role of friends. Friends tend to be the motivating force which can compel the victims to reintegrate in society and help in release of pent-up emotions. Most of the participants of the study indicated their friends as the most reliable source for sharing personal information regarding treatment and emotional catharsis as indicated by one of the participants that *I used to share my disappointments with my best friend and it used to be most satisfying sharing* (Participant F, L: 192).

Data of current theme revealed that friends played the most important role in reintegrating victims in their routine and professional lives by creating opportunities for them. Participants' friends were well aware of how their victimized friends can be influenced to take part in various activities such as friend of one of the participants used to encourage her for stitching clothes; knowingly that it used to be her hobby and it was something which could distract her attention. Friends of victims went out of their way in supporting their friends as one of the participants narrated that *my friend requested her supervisor to interview me at my home just because I had isolated myself and she wanted me to start my professional life again* (Participant A, L: 43).

Cluster Theme 4 - People's attitudes towards victims. Society, in general, plays its role in intensifying the effects of acid attack and resulting facial disfigurement for every victim. Every society reflects a particular mindset while finding attributions for such events. In patriarchal societies, women are mostly blamed for their own victimization which was evident in interview data of current theme as well. Every participant of the study, at some point after victimization, encountered the social situation in which she was blamed for acid attack. One of the participants, while sharing her experiences, narrated that *women are blamed for their own victimization; they are blamed for infidelity in name of provision of justification for a brutal act by their husbands* (Participant D, L: 102). Not only such kind of accusation takes its toll on the victims, they are also drained while explaining themselves particularly in public settings. "*What had happened?*" is the most frequent question which an acid burn victim is used to encounter after victimization (Participant E, L: 153).

Emergent Theme 2: Psychological effects

Cluster Theme 1 - Psychological distress. *This is something which sticks with your mind, something you keep on thinking about* (Participant E, L: 155). Psychological distress is an evident and unavoidable outcome of acid attack and facial disfigurement which haunts these victims for years. It emerges at various levels including personal level where a victim feels troubled after facial disfigurement and become insecure about her future, at familial level where victimization tends to put excessive emotional and tangible burden on victim and her family, and societal level where the victim has to socialize alongwith her facial disfigurement and cope with varying attitudes of people. Depression, anxiety, uncertainty, stress, recurrent

thoughts of acid attack, aggression, avoidance, and revengeful feelings are some of the psychological effects of acid attacks.

This thought, that I will never regain my face, made me to commit suicide (Participant F, L: 218) and *I used to cry all the day long and my crying spells used to increase during nights* (Participant E, L: 148) are a reflection of how depression penetrates in lives of facially disfigured victims. A sense of loss of identity which participants perceived as *a scar which never fades away* made them to not only withdraw but actively avoiding personal encounters which is evident through verbatim of one of the participants that *I used to lock-up myself in room during people's visit to our home. I, infact, avoided people for years [due to my burnt face]* (Participant A, L: 6). Data trends also indicated a change in reactions of participants over the period of time replacing depression and avoidance with frustration anger outbursts mostly in form of *yelling on unnecessary inquiry about burnt face* (Participant B, L: 23) and *snubbing people for their unnecessary concern* (Participant D, L: 57).

Cluster Theme 2 - Facial disfigurement and body image. Facial disfigurement is probably the most calamitous effect of an acid attack that brings about various personality and coping related changes in victims. Facial disfigurement was found to be directly related with changes in body image after victimization in current data as indicated in verbatim of one of the participants that *This thought haunts me that I was beautiful [before victimization] and I can never be like before* (Participant F, L: 198). Not only the victims' personal evaluations about their body disfigurement bring about changes in their body image, but also phenomenon of looking glass self tends to play a vital role where victims evaluate their body image through other's reactions towards their facial disfigurement. For example; Participant B started working as a polio team member after 30 reconstructive surgeries where she experienced that *people used to shut their doors and hesitated to handover their child to a facially disfigured individual even when I was in representable condition* (L: 65). Participant E talked about the same reactions while narrating that *I didn't see my reflection in mirror for years but I got to know how horrible I looked when people used to be shockingly surprised while looking at my face* (L). This is what led to *covering entire face and neck* (Participant B, L: 67) and *apprehension while thinking about intimate relationship with anyone in the future* (Participant F, L: 203).

Cluster Theme 3 - Reactions on unpleasant concern. People's inquiry regarding the incident and disfigurement is appraised mostly as an unpleasant experience generating various types of reactions in victims. Irritability is one of the reactions which participants highlighted during their interviews as one of the respondents identified the settings in which people's concern led to irritability while she narrated that *most irritating thing used to be responding to people's inquiries [about the incident and disfigurement] in ceremonies* (Participant B, L: 70). *People's inquiries were like sprinkling salt on the burns, reminding agony related to acid attack* (Participant F, L: 222) leading to a vicious cycle of distress and deterioration of physical health (Participant E, L: 168)

Emergent Theme 3: Coping strategies

Cluster Theme 1 - Religious coping. Data trend indicated an emphasis on religious coping after acid attack which victims and their family members used along with other strategies to go through their tough scenario successfully. These strategies included turning to God for seeking help, increased frequency of prayers, increased frequency of reciting *Durood* (*Muslims' prayer for sending blessings on their Prophet Muhammad PBUH*), and increased frequency of recitation of *Quran* (*the Holy book of Muslims*). Families of the victims, particularly, arranged *Khatam Quran Paak* (recitation of Holy Quran in one setting by a group of people to seek greater help from God) (Participant A, L: 28; Participant B, L: 67).

Cluster Theme 2 - Problem-focused coping. Second important coping style was problem-focused coping style in which victims found the ways and alternatives to overcome the problems generated by their victimization. This took them an ample amount of time (usually years) to overcome their miseries and find a way out towards betterment. Participant C took initiative to end her misery which she narrated during her interview that *women didn't work in my family but I took initiative to end my miserable life by finding a job for me* (L: 91). Finding a way out was more evident in case of Participant E in which she undertook the course of beautician and made herself employed in a nearby beauty parlor (L: 172).

Cluster Theme 3 - Emotion-focused coping. Varying types of emotion focused coping strategies in the data included seeking emotional support from others, avoidance, and distancing etc. Friends

and family, especially mother, remained a primary source of emotional catharsis for the participants with whom they *felt relaxed after discussing their problems* (Participant B, L: 84). Avoidance is the technique in which a victim tends to avoid all the people and situations that reminded her of the actual event resulting in avoidance of casual activities like cooking to the avoidance of the paths and cities in which victimization took place like Participant D left her city to avoid recurrent thoughts of her incident (L:132). Distancing was used successfully by the participants in which they distanced themselves from distress thinking it was something else like taking distress as high blood pressure and soothing oneself through medicine (Participant C, L: 103).

Discussion

The study aimed to sought out the mechanisms which bring a palpable/profound change in interpersonal relationships of acid burn victims along with emergence of varying psychological effects and coping strategies used to deal with agony of facial disfigurement. Three objectives were developed as a starting point for data collection which ended up with three encapsulating or emergent themes namely interpersonal relationships, psychological effects, and coping strategies encompassing ten cluster themes.

First major finding included changes in victims' perceptions towards their immediate family, extended family, friends, and general public were studied. It also took into account the effects of people in varying social tiers on victims as well. Various forms of social support, including informational, moral, and tangible support, from friends and family were perceived positively by all the research participants with an emphasis on pleasantness of sharing positive sentiments with immediate family and friends. Previous research on importance of social support indicates that positive comments and support from friends and relatives are internalized by participants and used to boost their confidence and leads to better psychosocial adjustment (Thompson & Kent, 2001). Data pattern also indicated abundance of scratchy interactions with general public. Although this finding cannot be supported from any other data due to lack of research on this topic yet backing can be provided from other facially disfigured populations. Such as Griffey and Castle (2009) discussed in their book on facially disfigured populations that staring and inappropriate comments are two common gestures which facially disfigured people have to face primarily because they do not experience such faces in their daily life and easily become curious on witnessing one.

Various psychological effects had been examined through the data set indicating that most of these effects were negative in nature bringing discomfort for the victims experiencing them. Depression, recurrent thought of the incident, and avoidance of the activities and places related to traumatic incident (both of these symptoms may indicate towards presence of PTSD as well) were commonly observed in the data. Research conducted by Brajkovic, Bras, Gregurek, Loncar, and Mickovic (2007) also indicated the same patterns regarding depression as well as avoidance in their data set. The impact of facial disfigurement on body image was a highlighted area which is also explored in different facially disfigured populations. Important findings of current study highlighted a sense of victims' hopelessness in regaining their prior body and body image. Findings also emphasized that such feelings were also induced by unpleasant and shocking reactions of others which made these victims to further withdraw from their social lives. This sense of incompetence in social settings had also been highlighted by Jessee, Leeper, Strickland, and Wales (1992) while working with other facially disfigured populations.

Two different types of cases can be noticed while reviewing the effects of acid attacks. The first case is in which victim does not survive due to intense pain and injuries to vital areas of body or commits suicide to end the life's agony. The second case comprises of the victims who survive and find various kinds of social support to cope effectively with their disfigurement. So, coping comprises a significant part of their healing process. At a very initial level, these victims tend to hide themselves from people and use avoidance which is also evident through finding of Kent (2000) that facially disfigured try to conceal their disfigurement by actively avoiding social places. An interesting pattern had been observed in the data regarding usage of problem-focused and emotion-focused coping that is; victims tend to use emotion-focused coping at earlier stages of their victimization to get rid of their overwhelming emotions whereas; problem-focused coping was used after undergoing various reconstructive surgeries when they were a little bit in a better form. This finding is consistent with McLeod's (2010) finding where he found emotion-focused coping effective for initial briefer period of time followed by problem-focused coping to deal with rest of the situation.

The present study significantly contributes into the literature on acid burn victims, particularly comes up with an indigenous viewpoint on these attacks and their effects as acid attacks are considered a lethal issue of South Asian countries primarily. Not only the study has confirmed findings of previous literature regarding psychological

distress of acid burn victims but also provided some worthwhile additions in domain of relationships and coping patterns of these victims. As it has already been argued in discussion that relational effects of disfigurement, through acid attacks, have been inferred from other disfigured population, the present research has investigated the effects of facial disfigurement on relationships of the victims directly. So, it has not only added to the literature but provided a foundation for new researchers to design further research on finding of present study. As far as implications of the research are concerned, it will be helpful in devising clinical intervention keeping in view the distress, interpersonal relationship difficulties, and body images related issues as well as sensitizing general public and relevant authorities about seriousness of the issue.

Small sample size is one of the major limitations of the research which can obstruct the generalizability of the findings. So, there is suggestion of using large sample size to confirm these results and making generalizability better for this very population. Only qualitative method of inquiry has been employed in present research so, usage of mixed method inquiry will be helpful in validating data findings and generating particularized results.

Conclusions

The research centered on the interpersonal relationships, psychological effects, and coping strategies of acid burn female victims. It was concluded that support from family and friends, in any form, appeared as a positive indicator whereas; staring and inappropriate comments from general public appeared as negative indicators of psychosocial adjustment for these victims. Changes in body image, experience of depression and PTSD symptoms were evident in all the victims and they tend to use avoidant coping at earlier stages of their victimization. A shift to problem-focused problem solving was undertaken by many of the respondents at later stages of their victimization in which they had undergone a number of surgeries and regained some of their facial features.

References

- Acid Survivors Foundation. (2016). *Acid attack statistics*. Retrieved from <http://www.acidsurvivors.org/Statistics>
- Bokhari, S. (2013, April 22). Woman and daughter suffer acid attack in Multan. *News Pakistan*. Retrieved from http://pakistaniwomen.org/contact_pwhro.html

- Brajkovic, L., Bras, M., Gregurek, R., Loncar, Z., & Mickovic, V. (2007). Coping with severe burns in the early stage after burn injury. *Journal of Burn Care and Research*, 31(1), 159-163. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/17598395>
- Callahan, C. (2004). Facial disfigurement and sense of self in head and neck cancer. *Social Work Health Care*, 40(2), 73-87. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/15774364>
- Chandler, M. J., Lalonde, C. E., & Sokol, B. W. (2003). Personal persistence, identity development, and suicide: A study of native and non-native North American adolescents. *Monographs of the Society for Research on Child Development*, 68 (2), 131- 138. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/12951783>
- Colaizzi, P. (1978). Psychological research as the phenomenologist's view in it. In R. Vale & M. King (Eds.), *Existential-phenomenological alternatives for psychology* (pp. 48-71). New York: Oxford University Press.
- Faga, A., Mezzetti, M. G., Scevola, D., & Scevola, S. (2012). Sulphuric acid burn women in Bangladesh: A social and medical problem. *Burns*, 26(8), 701-709. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/11024602>
- Furness, P., Garrud, P., Faulder, A., & Swift J. (2006). Coming to terms: A grounded theory of adaptation to facial surgery in adulthood. *Journal of Health Psychology*, 11(3), 453-66. doi: 10.1177/1359105306063318
- Griffey, H., & Castle, B. (2009, March 1). *Living with a disfigurement: Managing the challenges* [Blog post]. Retrieved from [https://www.changingfaces.org.uk/downloads/Living%20with%20a%20Disfigurement%20Managing%20the%20challenge%20\(web\).pdf](https://www.changingfaces.org.uk/downloads/Living%20with%20a%20Disfigurement%20Managing%20the%20challenge%20(web).pdf)
- Grunert, B. K., Rusch, M. D., & Saner, J. R. (2000). Psychological adjustment in children following traumatic disfiguring injuries. *Plastic and Reconstructive Surgery*, 106, 1451-1458. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/1112917>
- Guerrero, L. (2012). Burns due to acid assault in Bogota, Colombia. *Burns*, 4179(12), 354-363. doi: 10.1016/j.burns.2012.10.022
- Jaspal, R. (2012). Disfigurement: The challenges for identity and the strategies for coping. *Psychological Studies*, 57(4), 331-35. doi: <https://doi.org/10.1007/s12646-012-0145-y>
- Jessee, P. O., Leeper, J. D., Strickland, M. P., & Wales, P. (1992). Perception of body image in children with burns five years after burn injury. *Journal of Burn Care and Rehabilitation*, 13(1), 33-38. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/1572853>
- Junejo, S. (2012, March 27). *The burn victims of Pakistan* [Blog post]. Retrieved from http://www.huffingtonpost.com/shama-junejo/the-burn-victims-of-pakis_b_1377694.html

- Juwaley, S. (2012, April 10). What happens after your husband throws acid on your face. *INK Talks*. Retrieved from <http://www.inktalks.com/discover/81/shirin-juwaley-what-happens-after-your-husband-throws-acid-on-your-face>
- Kent, G. (2000). Understanding the experiences of people with disfigurements: An integration of four models of social and psychological functioning. *Psychology, Health, & Medicine*, 5(2), 117-129. doi: <http://dx.doi.org/10.1080/713690187>
- Kostinger, M. & Roth, P. M. (2012). Synergy-based learning of facial identity. *Lecture Notes in Computer Science*, 74, 195-204. doi: https://doi.org/10.1007/978-3-642-32717-9_20
- Krishna, S. (2009). Disfigurement: Psychosocial impact and coping. *The Open Dermatology Journal*, 3, 54-57. Retrieved from <http://www.benthamopen.com/todj/index.htm>
- Mannan, A. (2006). Psychosocial outcomes derived from an acid burned population in Bangladesh, and comparison with Western norms. *Burns*, 32(2), 235-241. doi: 10.1016/j.burns.2005.08.027
- McLeod, S. A. (2010). Emotion focused coping [Web log post]. Retrieved from <http://www.simplypsychology.org/emotion-focused-coping.html>
- Mirza, I. (2011, June 24). Increasing acid attacks [Web log post]. Retrieved from <http://libguides.gwums.edu/content.php?pid=168844&sid=1421719>
- Morrison, J. (2005). *Fact finding visit to Cambodia*. New York: ASTI.
- Pakistan Ministry of Women Development. (2011, August 31). *Pakistan women opportunities and challenges*. Retrieved from http://www.google.com.pk/#sclient=psy-ab&q=ministry+of+women+development+pakistan+official+website&oq=Ministry+of+women+development+&gs_l=serp.1.3.0l4.988.988.1.3378.1.1.0.0.0.0.362.362.3-1.1.0...0.0...1c.1.18.psy-ab.vfslFLSceQU&pbx=1&bav=on.2,or.r_qf.&fp=4f9c339639e06203&biw=1192&bih=539
- Rumsey, N., & Harcourt, D. (2004). Body image and disfigurement: Issues and interventions. *Burns*, 1, 83-97. doi: 10.1016/S1740-1445(03)0005-6
- Smile Again Foundation. (2010, September 2). *Progress report 2010*. Retrieved from <http://www.depilexsmileagain.com/brochures/reports/959062026813626.pdf>
- Thompson, A. R., & Kent, G. (2001). Adjusting to disfigurement: Processes involved in dealing with being visibly different. *Clinical Psychology Review*, 21(5), 663-682. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/11434225>

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