



## Introduction

Primary outcome goals for pediatric burn patients include:

- regaining social functioning
- achieving developmental social milestones.

Appearance related concerns may be a barrier to patient achieving these goals and may also be related to increased risk for anxiety and depression.

The purpose of this study is to evaluate how appearance-related concerns affect social and academic functioning for children with visible scars.

## Methods

A secondary analysis of data collected using Burn Outcomes Questionnaire (BOQ) and the Pediatric Symptom Checklist (PSC) which measures psychosocial well-being, was conducted in a pediatric burn center.

- 36 patients aged 11-18 years (mean age 14.58; 51.4 % male; 70% White) between 2000 and 2017, were administered questionnaires

- The relationship between scores for appearance related concerns (BOQ; Figure 1) and social functioning (BOQ), academic functioning (BOQ), externalizing psychiatric symptoms (PSC) and internalizing psychiatric symptoms (PSC) were tested using 1-tailed Pearson's Correlations.

Figure 1: Burn Outcomes Questionnaire Appearance Related Concerns

The following questions ask about your appearance.

	Definitely true	Mostly true	Not sure	Mostly false	Definitely false
13 I feel that the burn is unattractive to others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14 I think people would not want to touch me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15 I feel unsure of myself among strangers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16 Changes in my appearance have interfered with my relationships.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Table 1: Example questions from the BOQ and PSC outcomes measures

	Burn Outcomes Questionnaire (BOQ 11-18)	Pediatric Symptom Checklist (PSC)
Subscales		
<b>Academic Functioning</b>	Following your return to school after the burn injury, how would you rate your ability to perform schoolwork?	Less interested in school
<b>Internalizing Symptoms</b>	How well does this statement describe you? I feel depressed and talk about death.	Feels sad, unhappy
<b>Externalizing Symptoms</b>	How well does this statement describe you? I feel angry.	Fights with others
<b>Social Functioning</b>	Can you take part in recreational activities with other kids the same age (for example, dancing, bicycling)?	Seems to be having less fun

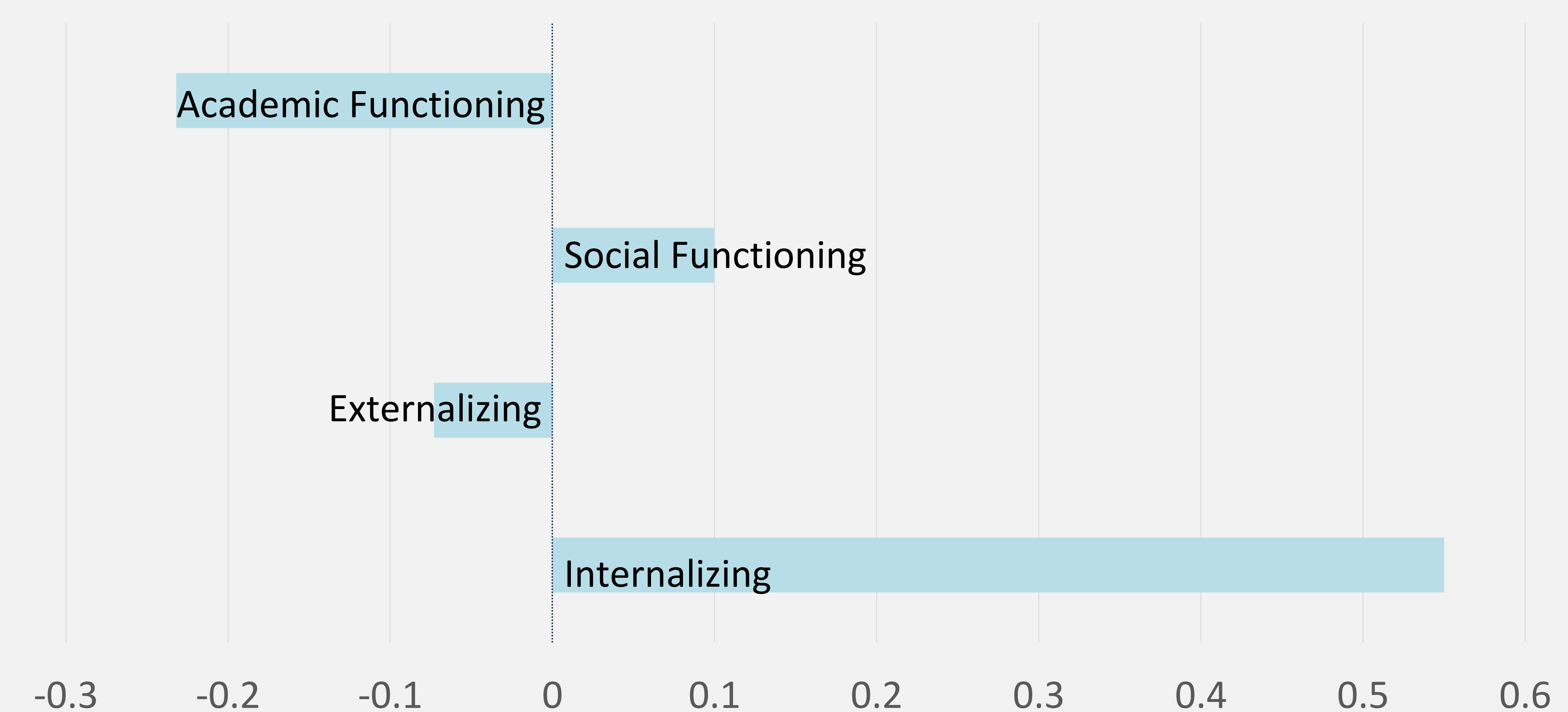
## Results

Table 2: Correlations Between BOQ Appearance Score and Psychiatric Symptoms, Social and Academic Functioning Scores

Variable		Internalizing Subscale	Externalizing Subscale	Social Functioning	Academic Functioning
Appearance Score	Pearson's Correlation Coefficient	0.521	-0.073	0.10	-.232
	Significance*	0.001	0.336	0.286	0.083
N		36	36	36	36

\*Significance determined at  $p < 0.05$

Figure 2: Correlations Between BOQ Appearance Score and Psychiatric Symptoms, Social and Academic Functioning Scores



## Conclusions

- As expected, appearance related concerns post pediatric burn injury were associated with increased internalizing symptoms (e.g. anxiety and depression).
- Appearance related concerns were not significantly associated with externalizing symptoms or with social functioning.
- The association between appearance related concerns and worse academic functioning was in the expected direction but was not significant.
- A larger sample size would allow for the statistical evaluation of possible mediating and moderating effects of the association between appearance related concerns and internalizing symptoms post pediatric burn injury. For example:
  - What are the possible moderating effects of gender, race and ethnicity?
  - Are appearance related concerns a possible mediator of internalizing symptoms and social/ academic functioning?

## Applicability to Practice

Results of this study suggest a need for screening of internalizing psychiatric symptoms among our patient population. Additional screening of appearance related concerns may be helpful in identifying a significant contributing factor to anxiety and depression post pediatric burn injury. Once identified, patients can be offered appropriate interventions.

## References

- King, I. C. (2018). Body Image in paediatric burns: a review. *Burns & Trauma*, 6(12).
- Lawrence, J. W., Rosenberg, L. E., & Fauerbach, J. A. (2007). Comparing the body esteem of pediatric survivors of burn injury with the body esteem of an age-matched comparison group without burns. *Rehabilitation Psychology*, 52(4), 370–379.
- Noronha, D. O., & Faust, J. (2007). Identifying the variables impacting post-burn psychological adjustment: a meta-analysis. *Journal of Pediatric Psychology*, 32(3), 380–391.

