

‘This is the place where I can be alone, no tension:’ Photovoice evidence for adolescent perceptions of their microsystem and psychological adjustment

Varalakshmi Chandra Sekaran^{a,c}, Ajay Bailey^{b,c,*}, Veena Ganesh Kamath^d, Lena Ashok^e,
Asha Kamath^f

^a Department of Community Medicine, Melaka Manipal Medical College (Manipal Campus), Manipal Academy of Higher Education, Manipal, India

^b International Development Studies, Department of Human Geography and Spatial Planning, Utrecht University, Utrecht, the Netherlands

^c Transdisciplinary Center for Qualitative Methods, Prasanna School of Public Health, Manipal Academy of Higher Education, Manipal, India

^d Department of Community Medicine, Kasturba Medical College, Manipal, Manipal Academy of Higher Education, Manipal, India

^e MSW Program, Department of Global Health, PSPH, Manipal Academy of Higher Education, Manipal, India

^f Department of Data Science, PSPH, Manipal Academy of Higher Education, Manipal, India

ARTICLE INFO

Keywords:

Gender
Adolescents
Psychological adjustment
Socialization
Visual analysis

ABSTRACT

Adolescents experience myriad emotions which occur in relation to their immediate social space which may shape their perceptions of members within the microsystem. The photovoice method uniquely provides participants with the means to capture their life through the lens of a camera while also enabling them to express emotions and meanings they attach to their particular life situations. We explore the various emotions adolescents attach to the spaces they occupy and how they link them to socialization in the context of the microsystem. This study was conducted in rural and urban areas of Udupi taluk, southern India. A total of 21 participants, ranging from early to late adolescence participated and provided multiple forms of data with 112 photographs, 21 journals on their daily interactions and one-on-one interviews facilitated using the SHOWeD model. The analytical method involved compiling visual data from photographs, journal content and interview data pertaining to each participant as a single data file, developing codes using ATLAS.ti, version 8, and further developing sub-themes and themes as they emerged into narratives. Our study was able to elicit emotions and meanings that adolescents attached to social interactions with gendered nuances specific to the Indian cultural setting. Future applications of the photovoice methodology on research among adolescents have also been discussed.

1. Introduction

The role of the immediate environment in which an adolescent lives and socializes in has a bearing on shaping development and ultimately on adjusting into adulthood (Clark et al., 2011; Jagers et al., 2015; Mason and Korpela, 2009). The spectrum of experiences can range from nurturing to repressing with short and long-term impacts (Hoyt et al., 2012). In recent years, there has been increasing attention given to familial, societal and cultural impacts on adolescence as described by the World Health Organization (WHO, 2018). Across the globe, parental interaction has been cited as an important predictor of psychological development of their adolescent children (Cripps and Zyromski, 2009; Hasumi et al., 2012; Xiao et al., 2011). The global burden of mental health conditions has been projected to increase from 12.3 % in 2000 to 14.7 % in 2020 (Patel et al., 2006). The importance of

identifying mental health and behavioural conditions in early adolescence is emphasized by literature which indicates that the first episodes of such conditions may appear as early as 14 years of age and missed opportunities in identifying them contribute to continued morbidity into adult life, adversely affecting adjustment of the individual and their families according to the World Health Organization (WHO, 2018)

In recent literature, cohesion within the family is found to predict psychological adaptation in an adolescent. Research emphasizes the role of the early experiences within the family as equipping them to navigate into adulthood (Chandrasekaran et al., 2018; Tagliabue et al., 2014). Bronfenbrenner (Bronfenbrenner, 1994; Pinderhughes et al., 2013) through his ecological model described that the ‘microsystem’ involves interactions within the family including with the parents and siblings, peer relationships, and exchanges with the surrounding community. The role of culture was emphasized by Bornstein MH

* Corresponding author at: International Development Studies, Department of Human Geography and Spatial Planning, Utrecht University, Utrecht, the Netherlands.

E-mail address: a.bailey@uu.nl (A. Bailey).

<https://doi.org/10.1016/j.ajp.2020.102021>

Received 18 November 2019; Received in revised form 5 March 2020; Accepted 19 March 2020

1876-2018/ © 2020 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

(Bornstein, 2013), who described parents as following “cultural scripts” in parenting their wards. Family apart, peers play an important role in influencing adolescent development. While much of literature focuses on poor adolescent outcomes in relation to peer affiliation, recent literature also proposes positive prosocial behaviours and better psychosocial adjustment (Lee et al., 2017)(van Hoorn et al., 2016). While these facets of psychosocial development have been studied, literature informing processes within the eastern perspective are available but limited.

This study uses the photovoice methodology to enable narratives to emerge from the perspectives of the adolescents themselves to explore the intersection between their perceived emotions and socialization within the microsystem which have been in focus in recent years (Chakraborty, 2009; Jones, 2007). How adolescents frame relationships as well as the emotions and symbolisms that they attach to them in the context of space is a fascinating field of study drawing from the field of emotional geographies (Anderson and Smith, 2001; Davidson and Milligan, 2004) where exploration of diverse “senses of space” help in the appreciation of the perceived emotions and affective bonds that are attached to socio-spatial lives (Altman and Low, 2012; Dallago et al., 2011). We aimed at exploring the emotions that adolescents attach to the spaces they occupied, how they frame their social relationships with their family members and peers and their psychological adjustment.

2. Methods

2.1. Participants

The institutional ethics committee of a tertiary care hospital approved the study (MUEC/013/2017). At the time of conducting the study, Udupi district was constituted by three taluks and Udupi taluk was randomly selected. A taluk is an administrative area which is further divided into cities, towns or villages. The study was conducted in rural and urban areas of the taluk. In India, the Integrated Child Development Scheme (ICDS) services are extended through the anganwadi centres throughout the country. These centres maintain lists of the local population. Our target age group middle to late adolescents, i.e., between the ages of 14–19 years. Potential participants in this age group were identified from these lists and purposive sampling was done. With the help of community health workers including anganwadi workers (AWW) and Accredited Social Health Activists (ASHA), the potential participants were met at their homes or at the anganwadi centre. Families that met the inclusion criteria that parents and their adolescent child should have resided within the same household for a period of at least three months prior to the interviews and had had no known mental health conditions in the past were included in the study. A total of 23 adolescents were invited to participate, of whom two withdrew. In all, 21 adolescents participated, most of whom belonged to nuclear families, with one each from a joint family, an extended family, and from a single-parent family. Seven adolescents belong to one-child households while others had at least one sibling (Table 1).

2.2. Data collection

The photovoice methodology is a form of participant-led research in which researchers and participants partner through photography and narratives (Annang et al., 2016; Palibroda et al., 2009; Strack et al., 2004). The photovoice methodology followed in this study included capturing photographs of the adolescents’ routine lives and interactions with family and peers which they perceived as holding personal meaning. They were also required to maintain a journal for the duration of the week in question. Interviews were then conducted with the participants one-on-one with the photographs serving as visual prompts. The study methodology is described in detail as follows. During initial contact, parents were approached at their convenience by the researcher at their homes or at an anganwadi centre. At least, three

Table 1
Themes and sub-themes that emerged.

The home as symbolic of family relationships: <ul style="list-style-type: none"> - Entrance to the home and perception of family involvement - Shared family meals within the home space evoking feelings of love and comfort
Self in the context of space <ul style="list-style-type: none"> - ‘Own room’ as a personal space to escape into - Gender differences in perceptions of ‘the wall’ within the adolescent’s room - Self-regulation and resilience depicted by everyday objects (Lamp/the wall) - Duality of perceptions in relation to public/natural spaces as places for shared family experiences and as private spaces
Socializing with peers within and outside the home space <ul style="list-style-type: none"> - Gendered views on leisure activities and peer bonding - Role of sports and exploring cuisines in stimulating peer bonding
Feeling at home in the neighborhood <ul style="list-style-type: none"> - The neighborhood and memory making

moments of contact were established with the participants during data collection. During initial contact, the researcher visited the homes of the participants and obtained parental consent and adolescent assent. The photovoice methodology was explained to the participants including capturing photographs and maintaining their journal. The photographs served as a vehicle for self-defined lived-experiences to be expressed in the participants’ own voices, providing richer and deeper in-sight (Wang and Burris, 1997). The assignment involved journaling their lived experiences on a day-to-day basis and emotions that they may want to express in relation to any event that happened during the week in question. During the second contact, i.e., at the end of the week, photography release forms were obtained. In all, 21 journals along with the 112 photographs were collected, following which in-depth interviews (IDIs) were conducted in English or Kannada per the participant’s preference.

2.2.1. In-depth interviewing

As the interviews were participant-led with the photographs used as initiators for the narratives, a structured interview schedule was not developed. However, the themes of framing relationships with family and peers as well as what meanings they gave these photographs were probed into to gain insight in keeping with the research objectives. The interviews lasted between 45–60 min and were facilitated using the SHOWeD model of Wang (1999) and probed in relation to: What do we see here?; How does this relate to our lives?; Why does this situation exist? And what can we do with it? The interviews were recorded and notes maintained. The interviews were then transcribed into English and rechecked for accuracy. The data collected was anonymized and stored with access available only to the research team. The data collection spanned between October to December 2017. Counselling was provided by the researcher and where necessary by a social work professional to adolescents to work through feelings that may have risen during the interviews.

2.3. Data processing and analysis

The transcripts were fed into ATLAS.ti, version 8. The analytical method involved compiling visual data from photographs, journal content and interview data pertaining to each participant as a single data file, developing codes, and further developing sub-themes and themes as they emerged into narratives. The themes were both deductive and inductive in nature (Hennink et al., 2011). Capturing data in multiple forms from each participant helped provide validity to the data. The themes and sub-themes that emerged are listed in Table 2 and structure our discussion of the results.

3. Results

The results are arranged in the sequence of family interactions and the home space; self in interaction with spaces both within the home

Table 2
Participant profile.

Participant names*	Age	Gender (M/F)	Urban/Rural	Living arrangements
Pavitra	14	F	R	Extended family [@]
Sandy	14	F	U	Nuclear(F/M/B)
Sam	14	M	U	Nuclear(F/M/S)
Anitha	15	F	R	Nuclear(F/M/S)
Nethra	15	F	R	Nuclear(F/M/S)
Vedanth	15	M	R	Nuclear(F/M/S)
Sunitha	15	F	U	Nuclear(F/M) [#]
Sinchana	15	F	R	Nuclear(F/M/B)
Sindhu	16	F	R	Nuclear(F/M/S/C)
Tanvik	16	M	U	Nuclear(F/M) [#]
Suhas	16	M	R	Nuclear(F/M/B)
Aman	16	M	U	Nuclear(F/M) [#]
Prithvi	16	F	R	Nuclear(F/M) [#]
Suman	16	M	U	Single parent (M) [#]
Satish	17	M	R	Nuclear(F/M) [#]
Yyvonn	17	F	U	Joint (F/M/B)
Benedict	17	M	R	Nuclear(F/M/S)
Namitha	18	F	R	Nuclear(F/M/S)
Aarav	18	M	U	Nuclear(F/M/B)
Akash	18	M	U	Nuclear(F/M) [#]
Madhur	19	M	U	Nuclear(F/M/B)

Participant names* = Pseudonyms.

F = Father, M = Mother, B = Brother, S = Sister, C = Cousins.

Single children.

@ Maternal sister's home.

and public spaces; spaces used during interaction with peers and with the community.

3.1. Theme: the home as symbol of family relationships

Participants lived with their families which were largely nuclear in structure with both parents and at least one sibling living together. On average, they had lived in their homes for about 10–15 years and belonged to the middle-class section of the society. All fathers were employed except one and among mothers, most were employed except five were housewives from rural areas.

3.1.1. Sub-theme: Entrance to the home and perception of family involvement

In relation to their family and homes, participants who provided photographs of the front entrance of their homes, in their interviews used it as a proxy for family and spoke regarding feelings of 'love' the photographs evoked (Photo 1).



Photo 1. Front entry to the home - ©Satish, male, rural, 17 years.



Photo 2. Shared meal time - ©Sindhu, female, rural, 16 years.

3.1.2. Sub-theme: shared family meals within the home space evoking feelings of love and comfort

Adolescents stated that they looked forward to spending time or participating in shared activities with family members, especially meal times. One participant living in an extended family with parents, siblings, uncles and cousins, stated Photo 2:

In our home, we are eight members. Only after all of us return home, we sit together and eat dinner. It feels really good to be that way. When we all sit together, my father will speak about yakshagana (folk dance), mother will ask about it..meaning, he informs mother so she is aware about what is happening. My older sister, when we are together, we speak about college. My younger sister (cousin) also speaks about what happened in school. My brother (cousin) has very different things to share, 'I did this and that.' (Interview: Sindhu, female, rural, 16 years)

The photograph depicts the traditional Indian practice of sitting together on the kitchen floor to share a meal. The use of the photovoice as a tool helped participants reflect on their relationships whether in relation to structure, to the environment or to individual family members. It was of interest to observe that the interviews appeared to help them connect the dots and have the ability to zoom out and see the larger picture. These insights may have added value to the relationships of the participants.

3.2. Theme: the self in the context of space

3.2.1. Sub-theme: 'Own room' as a personal space to escape into

Adolescents chose to photograph their rooms or walls to depict personal spaces and narrated the significance they held for them. Two participants, a male and female, each shared photographs of their rooms.

The female participant was raised in a joint family and had moved into a nuclear household recently. She had captured an image of her room as well as of her own shadow on a wall to express her need to withdraw and feel safe within her room. She stated that her mother corrected her behaviour and speech numerous times during their interaction which led her to feel anxious (Photo 3).

This the place where I can be alone, no tension....because when I go outside, my mom always keeps telling, 'don't do that.' I may speak something wrong in front of somebody and everybody feels, don't be childish... you are grown up now. (Interview: Sinchana, female, rural, 16 years)

The camera captured another facet of her in that she likened herself to a burning lamp. The data collection and interviews were performed around the time when Diwali, (festival of lights), is celebrated. It was notable that she expressed the desire to stay strong like the fire burning in one of the lamps. Self-regulation and resilience were hence depicted by everyday objects.

[Photos 4 and 5] I like fire. Because it's strong... stronger than



Photo 3. My room - © Sinchana, female, rural, 16 years.

anybody else. Nobody can be in front of the fire. I wanted to become like that ...yes.

(Interview: Sinchana, female, rural, 16 years)

Using photovoice has appeared useful in developing insights into the participants' relationship dynamics and may potentially prove useful in family therapy work.

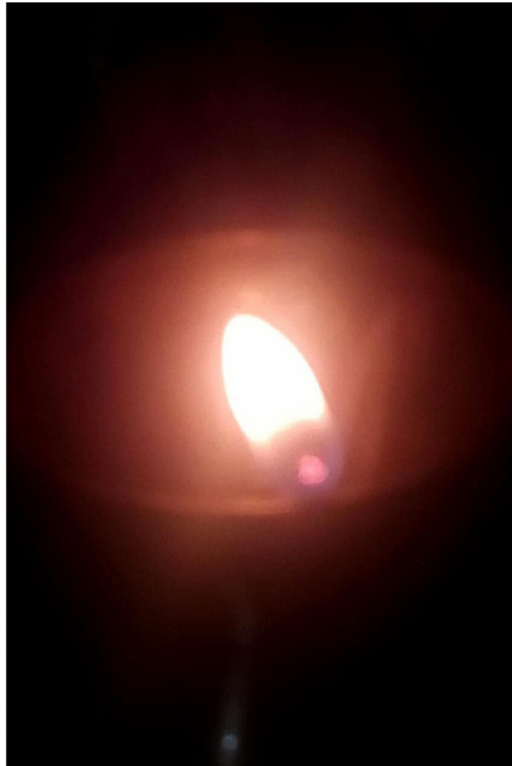
3.2.2. Sub-theme: Gender differences in perceptions of 'the wall' within the adolescent's room

While the female participant shared a photo of her shadow on the wall, depicting her need for withdrawing into her room, an urban male participant also shared a photograph of 'the wall' in his room. This was where he would support himself as he would exercise [Photo 6].

This looks like an empty wall but to me, it is much more because I develop this kind of skills so, I practice. I have this point to prove that you can become fit without gym membership and callisthenics is my thing. It came from within ... I have to change, I changed. It is the first change that I took in my life and that has led to many other changes. So, it is the foundation or basement. I have become more open to people, more sociable, more likeable. I have been taking more opportunities,



Photo 6. The wall - ©Akash, male, urban, 18 years.



Photos 4 and 5. The shadow on the wall and the lamp - © Sinchana, female, rural, 16 years.



Photo 7. The seashore - ©Yvonne, Female, Urban, 17 years.

not letting things go and so, this has been the foundation for all that. I have that to thank....my mom. She has been inspired that I tried so hard.... and she motivated me. (Interview: Akash, male, urban, 18 years)

He felt that he had fundamentally changed since taking up the challenge and that had led to an increased sense of confidence. The ability to introspect on the sequence of events in the participant's life and how it had transferred to his self-perception indicated a shift in perspective and appreciation regarding his achievement.

Spaces perceived as bearing meanings to adolescents were not restricted to the home alone but also included public spaces. Interestingly, at least five participants had photographed natural spaces and attached various meanings to. The proximity to the coast could have been another reason for this. Varied meanings attached to the photographs included 'time with family,' 'travel,' or in one case, it had a negative emotion of 'fear' stemming from being close to water. One participant stated that she sought the shores as a place of refuge to 'escape' when she felt low which is discussed in the next section.

3.2.3. Sub-theme: Duality of perceptions in relation to public/natural spaces as places for shared family experiences and as private spaces

(Photo 7) It's like the best escape....whenever I feel low I like to go to that place and sit in the shores....alone. I usually just go alone. Sometimes, I have this mental breakdown. I don't know what happens... I just feel like everything is messed up, nothing is going on right. (Interview: Yvonne, Female, Urban, 17 years)

The use of a natural location as symbolic of a place of escape emphasizes the search for a private space even in public spaces within which to withdraw to and reflect. The use of natural or public spaces has been cited as restorative and stress relieving in literature and that adolescents seek such spaces (Owens and McKinnon, 2009). This also echoes concepts related to autonomy seeking and identity formation.

3.3. Theme: socializing with peers within and outside of the home space

3.3.1. Sub-theme: Gendered views on leisure activities and peer bonding

Peer bonding emerged as an important facet of adolescent socialization. Peers featured in several aspects of the participants' sphere of everyday life, including around food and sports. While male



Fig. 8. Exploring food - ©Madhur, Male, Urban, 19 years.

participants took to the outdoors, female participants shared photographs of the kitchen as a space of bonding with peers, stating:

I was baking a cake...me and my friend... we were bored so we thought of making a cake and....we made a lot of cakes that week actually...at my friend's place. Yeah actually, cooking with my friends, when someone's around, it's nice to cook. (Interview: Yvonne, Urban, Female, 17 years)

Some of them also took up dancing as an activity.

3.3.2. Sub-theme: Role of sports and exploring cuisines in stimulating peer bonding

Several male participants stated that exploring restaurants was a favoured leisure activity and was a big part of shared experiences within peer groups. Experimenting with various cuisines, at times without parental knowledge due to restrictions either religious or cultural, also formed part of the narrative. Another participant shared personal struggles related to food allergies that had led him through a range of feelings from denial to acceptance over the past few years. (The photograph below was shared by a participant pursuing a professional degree in hospitality services.)

(Fig. 8) I have exercise-induced gluten allergy; not supposed to have any wheat or other things.... I think from 7th grade that is happening, so I am used to it now. Yeah, I don't mind now....there is no exact treatment for this. Maybe, it has made me more disciplined...I don't know, I think more adjusting. (Interview: Aarav, Male Urban, 18 years) (Photo 9).

Peer activities among males also involved playing sports and 'hanging out' with male friends which seemed to have an overall impact, including on their academics and was not be missed even if they were sick. The importance of engaging with peers in physical activity



Photo 9. The playground - ©Suhas, Male, Urban, 16 years.



Photos 10 and 11. The view from the balcony and the street below – ©Yvonne, Female, Urban, 17 years.

and its role in the psychological adjustment of adolescents has been explored (Goldfield et al., 2011).

3.4. Theme: feeling at home in the neighbourhood

3.4.1. Sub-theme: the neighbourhood and memory-making

(Photos 10 and 11) One of the female urban participants had recently moved into another residence and stated that she had attached a fondness to the view from her balcony at her old home. Built into her narrative on the photograph was a feeling of belongingness in her old neighbourhood.

Yeah, that's from my balcony. I just like to see people walking, walking with their dogs, cars, bikes and stuff like that. For two years, I was in that house.... a lot of memories in that place. (Interview: Yvonne, Female, Urban, 17 years)

In the rural context, one of the participants had also shared a photograph of a small clearing beside her home where the community members would gather. Thus, an empty lot became a place to come together and celebrate, reinforcing community bonding and 'we feeling.' Other participants had also shared photographs of the local community and stated that they enjoyed the sense of belonging to the community. The shared activities included playing games together or celebrating festivals that they participated in along with other family members. The sense of feeling connected to the community has been shown to improve outcomes among adolescents (Foster et al., 2017).

4. Discussion

The use of photographs as visual prompts helped engage the participants' senses, thoughts and emotions. With the photos as cues to elicit memories both past and present, the adolescents in our study voiced attaching various emotions to the spaces they occupied, reflecting how they framed their relationships in the microsystem (Pinderhughes et al., 2013). Glimpses of how emotions were attached to home spaces as representative of familial bonds were elicited. The use of the photovoice methodology drew insights into aspects of the participants' own life and helped gain perceptions which were not readily apparent. Having a perspective regarding their own life have helped draw on significant aspects of their social existence. With regard to the home space, it was

viewed as a 'safe haven,' serving as the secure base (Altman and Low, 2012; Bowlby, 1973; Brown et al., 2012; Repetti et al., 2002; Videon and Manning, 2003). Woven into this narrative was also the striking contrast of how participants perceived smaller spaces within their homes. In the middle-class Indian context, individual rooms for adolescents are more of a privilege than a norm. The living room, in such cases, acted as an extension of their personal space among those who enjoyed better bonds with their family. On the other hand, withdrawing behaviour was observed among female participants who felt restricted (Fernandes et al., 2013; James, 2001; McLeod et al., 2007). Public or natural spaces served a similar role as narrated by some of our participants. The perception of living in a supportive environment influences the concept of self (Fidzani and Read, 2014) and hence, helps build resilience against the development of problem behaviours and promotes psychological adjustment (Xiao et al., 2011).

Traditionally accepted activities such as cooking or dancing were adopted by female participants while outdoor activities, such as sports or exploring various cuisines at restaurants were common among male participants (Dallago et al., 2009; Goldfield et al., 2011) suggesting divergent socialization patterns (Lee et al., 2006) with gendered nuances that fit the dominant social discourse (Clark et al., 2011; Cockburn and Clarke, 2002). Gaining newer experiences generally involves some degree of non-disclosure to parents (Smetana et al., 2016) providing support for the growing need for autonomy and identity formation during adolescence.

Community bonding was also part of the narrative, more so among rural participants. Prosocial behaviour among adolescents may be augmented by feelings of security which may, in turn, lead to higher community attachment (Lenzi et al., 2012; Seaman and McLaughlin, 2014). A sense of belongingness is important in identity formation and self-regulation (Fidzani and Read, 2014) contributing to their psychological adjustment.

With regard to the clinical application of using photovoice, parallels can be drawn to play as an assessment tool. This method may help identify aspects that the participants attach meaning to from their own perspectives in a less intimidating setting while giving them the autonomy to capture what is significant through their eyes and in directing the flow of information. Just as play is used as a tool both in assessment and in therapy among children, the use of this methodology

can be further explored among adolescents. Recent trends in research among adolescents in the Asian context have focused on resilience amongst adolescents (Singh et al., 2019), digital use (Mamun et al., 2019), community violence (Fausiah et al., 2019) and exploring various determinants of adolescent mental health including psychosocial challenges of adolescents who face difficult circumstances (Sharma and Seshadri, 2020). Future research with the application of the photovoice methodology in such areas may prove useful in gaining unique and richer perspectives of the perceptions of adolescents in community and hospital-based research. To conclude, this study has contributed to understanding unique cultural and gendered nuances that guide the socialization and psychological adjustment of adolescents specific to the Indian context. Our hope is to continue the conversation on understanding the intersection between the emotional and psychological lives of adolescents in all its rich and varied nuances. Our findings suggest the need for programs that equip adolescents with adaptive emotional regulation skills while simultaneously providing parents with the skills to optimize experiences for their children and adolescents. The scope for the clinical application of photovoice as an assessment and/or therapeutic tool warrants further exploration. Such endeavours may help improve adolescent psychological adjustment and promote better outcomes among them.

Limitations

Processes in relation to sibling relations and other family members such as grandparents living with the adolescents were insufficiently explored. Peer relationships in relation to school-based interactions were not explored which may have added to a richer understanding of peer processes. These gaps need addressing and maybe the way forward in further understanding adolescent adjustment.

Financial disclosure

None.

Declaration of Competing Interest

None.

Acknowledgement

This work was supported by a grant from the Transdisciplinary Centre for Qualitative Methods, MAHE. The lead researcher would like to acknowledge the support and mentorship provided by the research team. We wish to also thank Mr. Syam KR, Assistant Professor, Department of Clinical Psychology-MAHE, for his feedback on the clinical implications of the study. Thanks also to the participants and to the support of the community health workers: Mrs. Jyothi and Mrs. Navya.

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.ajp.2020.102021>.

References

Altman, I., Low, S., 2012. Place attachment: a conceptual inquiry. *Place Attach.* 12, 1–12. https://doi.org/10.1007/978-1-4684-8753-4_3.

Anderson, K., Smith, S.J., 2001. Editorial: emotional geographies. *Trans. Inst. Br. Geogr.* 26, 7–10. <https://doi.org/10.1111/1475-5661.00002>.

Annang, L., Wilson, S., Tinago, C., Wright Sanders, L., Bevington, T., Carlos, B., Cornelius, E., Svendsen, E., 2016. Photovoice. *Qual. Health Res.* 26, 241–251. <https://doi.org/10.1177/1049732315576495>.

Bornstein, M.H., 2013. Parenting and child mental health: a cross-cultural perspective. *World Psychiatry* 12, 258–265. <https://doi.org/10.1002/wps.20071>.

Bowlby, J., 1973. Attachment and loss. Separation: Anxiety and Anger, Attachment and Loss Vol. 2.

Bronfenbrenner, U., 1994. Ecological models of human development. In: 2nd ed. In: Husen, T., Postlethwaite, N. (Eds.), *International Encyclopedia of Education Vol. 3*. Elsevier, Oxford, UK, pp. 1643–1647.

Brown, B.B., Altman, I., Werner, C.M., 2012. Place attachment, in: *International Encyclopedia of Housing and Home*. pp. 183–188. <https://doi.org/10.1016/B978-0-08-047163-1.00543-9>.

Chakraborty, K., 2009. “The good muslim girl”: conducting qualitative participatory research to understand the lives of young muslim women in the bustees of Kolkata. *Child. Geogr.* 7, 421–434. <https://doi.org/10.1080/14733280903234485>.

Chandrasekaran, V., Kamath, V.G., Ashok, L., Kamath, A., Hegde, A.P., Devaramane, V., 2018. Role of micro- and mesosystems in shaping an adolescent. *J. Nepal Paediatr. Soc.* 37. <https://doi.org/10.3126/jnps.v37i2.18307>.

Clark, M.I., Spence, J.C., Holt, N.L., 2011. In the shoes of young adolescent girls: understanding physical activity experiences through interpretive description. *Qual. Res. Sport. Exerc. Heal.* 3, 193–210. <https://doi.org/10.1080/2159676X.2011.572180>.

Cockburn, C., Clarke, G., 2002. “Everybody’s looking at you!”: girls negotiating the “femininity deficit” they incur in physical education. *Womens Stud. Int. Forum* 25, 651–665. [https://doi.org/10.1016/S0277-5395\(02\)00351-5](https://doi.org/10.1016/S0277-5395(02)00351-5).

Cripps, K., Zyromski, B., 2009. Adolescents’ psychological well-being and perceived parental involvement: implications for parental involvement in middle schools. *Res. Middle Lev. Educ. Online* 33, 1–13. <https://doi.org/10.1080/19404476.2009.11462067>.

Dallago, L., Perkins, D.D., Santinello, M., Boyce, W., Molcho, M., Morgan, A., 2009. Adolescent place attachment, social capital, and perceived safety: A comparison of 13 countries. *Am. J. Community Psychol.* 44, 148–160. <https://doi.org/10.1007/s10464-009-9250-z>.

Dallago, L., Lenzi, M., Perkins, D.D., Santinello, M., 2011. Place attachment in adolescence. In: Levesque, R.J.R. (Ed.), *Encyclopedia of Adolescence*. Springer, New York, NY, pp. 2083–2091.

Davidson, J., Milligan, C., 2004. Embodying emotion sensing space: introducing emotional geographies. *Soc. Cult. Geogr.* 5, 523–532. <https://doi.org/10.1080/1464936042000317677>.

Fausiah, F., Turnip, S.S., Hauff, E., 2019. Community violence exposure and determinants of adolescent mental health: a school-based study of a post-conflict area in Indonesia. *Asian J. Psychiatr.* 40, 49–54. <https://doi.org/10.1016/j.ajp.2019.01.020>.

Fernandes, A.C., Hayes, R.D., Patel, V., 2013. Abuse and other correlates of common mental disorders in youth: a cross-sectional study in Goa, India. *Soc. Psychiatry Psychiatr. Epidemiol.* 48, 515–523. <https://doi.org/10.1007/s00127-012-0614-6>.

Fidzani, L.C., Read, M.A., 2014. Identity expression and bedroom personalization by urban adolescents in Botswana. *J. Adolesc. Res.* 29, 691–715. <https://doi.org/10.1177/0743558413502533>.

Foster, C.E., Horwitz, A., Thomas, A., Opperman, K., Gipson, P., Burnside, A., Stone, D.M., King, C.A., 2017. Connectedness to family, school, peers, and community in socially vulnerable adolescents. *Child. Youth Serv. Rev.* 81, 321–331. <https://doi.org/10.1016/j.chilyouth.2017.08.011>.

Goldfield, G.S., Henderson, K., Buchholz, A., Obeid, N., Nguyen, H., Flament, M.F., 2011. Physical activity and psychological adjustment in adolescents. *J. Phys. Act. Health* 8, 157–163.

Hasumi, T., Ahsan, F., Couper, C.M., Aguayo, J.L., Jacobsen, K.H., 2012. Parental involvement and mental well-being of Indian adolescents. *Indian Pediatr.* 49, 915–918. <https://doi.org/10.1007/s13312-012-0218-y>.

Hennink, M., Hutter, I., Bailey, A., 2011. *Qualitative Research Methods*. London SAGE Publ. Ltd.

Hoyt, L.T., Chase-Lansdale, P.L., McDade, T.W., Adam, E.K., 2012. Positive youth, healthy adults: does positive well-being in adolescence predict better perceived health and fewer risky health behaviors in young adulthood? *J. Adolesc. Heal.* 50, 66–73. <https://doi.org/10.1016/j.jadohealth.2011.05.002>.

Jagers, J.W., Church, W.T., Tomek, S., Hooper, L.M., Bolland, K.A., Bolland, J.M., 2015. Adolescent Development as a Determinant of Family Cohesion: A Longitudinal Analysis of Adolescents in the Mobile Youth Survey. *J. Child Fam. Stud.* 24, 1625–1637. <https://doi.org/10.1007/s10826-014-9966-8>.

James, K., 2001. “I just gotta have my own space!”: the bedroom as a leisure site for adolescent girls. *J. Leis. Res.* 33, 71–90.

Jones, P.A., 2007. Researching the geography of mental wellbeing. *J. Ment. Heal.* <https://doi.org/10.1080/09638230701482386>.

Lee, S.M., Daniels, M.H., Kissinger, D.B., 2006. Parental influences on adolescent adjustment: parenting styles versus parenting practices. *Fam. J.* 14, 253–259. <https://doi.org/10.1177/1066480706287654>.

Lee, C.T., Padilla-Walker, L.M., Memmott-Elison, M.K., 2017. The role of parents and peers on adolescents’ prosocial behavior and substance use. *J. Soc. Pers. Relat.* 34, 1053–1069. <https://doi.org/10.1177/0265407516665928>.

Lenzi, M., Vieno, A., Perkins, D.D., Pastore, M., Santinello, M., Mazzardis, S., 2012. Perceived neighborhood social resources as determinants of prosocial behavior in early adolescence. *Am. J. Community Psychol.* 50, 37–49. <https://doi.org/10.1007/s10464-011-9470-x>.

Mamun, M.A., Hossain, M.S., Siddique, A.B., Sikder, M.T., Kuss, D.J., Griffiths, M.D., 2019. Problematic internet use in Bangladeshi students: the role of socio-demographic factors, depression, anxiety, and stress. *Asian J. Psychiatr.* 44, 48–54. <https://doi.org/10.1016/j.ajp.2019.07.005>.

Mason, M.J., Korpela, K., 2009. Activity spaces and urban adolescent substance use and emotional health. *J. Adolesc.* 32, 925–939. <https://doi.org/10.1016/j.adolescence.2008.08.004>.

McLeod, B.D., Weisz, J.R., Wood, J.J., 2007. Examining the association between parenting and childhood depression: a meta-analysis. *Clin. Psychol. Rev.* 27, 986–1003.

- <https://doi.org/10.1016/j.cpr.2007.03.001>.
- Owens, P.E., McKinnon, I., 2009. In pursuit of nature: the role of nature in adolescents' lives. *J. Dev. Process.* 4, 43–58.
- Palibroda, B., Krieg, B., Murdock, L., Havelock, J., 2009. A practical guide to photovoice: sharing pictures, telling stories and changing communities. *Communities*. <https://doi.org/10.1002/pmic.200900278>.
- Patel, V., Saraceno, B., Kleinman, A., 2006. Beyond evidence: the moral case for international mental health. *Am. J. Psychiatry* 163 (8), 1312–1315.
- Pinderhughes, E.E., Nix, R., Foster, E.M., Pittman, L.D., 2013. NIH public access. *Child Dev.* 63, 941–953. <https://doi.org/10.1111/j.1741-3737.2001.00941.x>. Parenting.
- Repetti, R.L., Taylor, S.E., Seeman, T.E., 2002. Risky families: family social environments and the mental and physical health of offspring. *Psychol. Bull.* 128, 330–366. <https://doi.org/10.1037//0033-2909.128.2.330>.
- Seaman, J., McLaughlin, S., 2014. The Importance of Outdoor Activity and Place Attachment to Adolescent Development in Coös County. *Build. Knowl. Fam. communities, New Hampshire*.
- Sharma, E., Seshadri, S.P., 2020. Adolescence: contemporary issues in the clinic and beyond. *Asian J. Psychiatr.* 47, 101803. <https://doi.org/10.1016/j.ajp.2019.09.021>.
- Singh, R., Mahato, S., Singh, B., Bhushal, S., Fomani, F.K., 2019. Psychometric properties of adolescent resilience questionnaire among nepalese adolescents in Lalitpur. *Asian J. Psychiatr.* 45, 13–17. <https://doi.org/10.1016/j.ajp.2019.08.002>.
- Smetana, J.G., Metzger, A., Gettman, D.C., Campione, N., Smetana, J.G., Metzger, A., Gettman, D.C., Campione-barr, N., 2016. Disclosure and secrecy in adolescent-parent relationships. *Child Dev.* 77, 201–217. <https://doi.org/10.1111/j.1467-8624.2006.00865.x>.
- Strack, R.W., Magill, C., McDonagh, K., 2004. Engaging youth through photovoice. *Health Promot. Pract.* 5, 49–58. <https://doi.org/10.1177/1524839903258015>.
- Tagliabue, S., Olivari, M.G., Bacchini, D., Affuso, G., Confalonieri, E., 2014. Measuring adolescents' perceptions of parenting style during childhood: psychometric properties of the parenting styles and dimensions questionnaire medindo a percepção dos estilos parentais de adolescentes durante a infância: As propriedades psicométr. *Psychol. Theory Res.* 30, 251–258. <https://doi.org/10.1590/S0102-37722014000300002>.
- van Hoorn, J., van Dijk, E., Meuwese, R., Rieffe, C., Crone, E.A., 2016. Peer influence on prosocial behavior in adolescence. *J. Res. Adolesc.* 26, 90–100. <https://doi.org/10.1111/jora.12173>.
- Videon, T.M., Manning, C.K., 2003. Influences on adolescent eating patterns: the importance of family meals. *J. Adolesc. Heal.* 32, 365–373. [https://doi.org/10.1016/S1054-139X\(02\)00711-5](https://doi.org/10.1016/S1054-139X(02)00711-5).
- Wang, C., Burris, M.A., 1997. Photovoice: concept, methodology, and use for participatory needs assessment. *Health Educ. Behav.* 24, 369–387. <https://doi.org/10.1177/109019819702400309>.
- WHO, 2018. Child and Adolescent Mental Health. https://www.who.int/mental_health/maternal-child/child_adolescent/en/.
- Xiao, Z., Li, X., Stanton, B., 2011. Perceptions of parent-adolescent communication within families: it is a matter of perspective. *Psychol. Health Med.* 16, 53–65. <https://doi.org/10.1080/13548506.2010.521563>.