



## **The Girls Who Stay Behind:**

**The influence of parental migration on subjective well-being of  
Stayed-Behind Girls in Chitwan District, Nepal.**

Research Internship and Thesis SPPH (201800156) - Master Social Policy and Public Health

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**Abstract**

**Background.** Twenty percent of poverty reduction in Nepal is due to international and domestic migration. Among these migrants are parents who are trying to find better financial opportunities. However, there is still a lack of knowledge on the effects of parental migration on the wellbeing of their daughters who stayed behind. This pilot study focuses on understanding what the influences are of domestic and international parental migration, age of stayed-behind girls (SBGs), type of school, as well as which parent migrate on, SBGs' subjective well-being (SWB).

**Methods.** A self-administered quantitative survey was conducted at six different schools among girls ( $n = 275$ ) age 12-16 in Chitwan District, Nepal (2020). To operationalize SWB, the average Quality of Life (QoL) was used. The data were analysed through one Mann-Whitney U test, two binomial logistic regressions, one Kruskal Wallis H test, and two simple linear regressions.

**Results.** 44.4% of the participants had one or two parents who migrated. There are no intergroup (SBGs and Non-SBGs) difference on SWB. But intragroup difference shows that SBGs with a higher SWB are more likely to study at a private school than a public school, and SBGs with both parents migrated have a higher SWB than SBGs with mother-based migration. Domestic or international migration and the age of SBG when a parent migrated are not predictors and factors that influence SWB

**Conclusions.** The findings in this study suggest that parental migration (yes/no) does not influence SWB of girls but going to a private school and having both parents migrated does increase SWB of SBGs. In conclusion, several suggestions are made for necessary future research to provide SBGs with adequate support and care, as well as a push for critical reflection on previous empirical studies and assumed correlations.

## Introduction

The globalisation of the labour market has motivated international migration among people looking to increase their quality of life. Parents are among these individuals; however, they are commonly not able to bring their children—or any other family member—with them. Hence, this could impact in various ways the well-being of *Stayed-Behind Children* (SBC), who usually bear the social costs of the absence of one or both parents. In the Chitwan District in Nepal, parental migration is particularly common in comparison to other regions in South-Asia (Bohra & Massey, 2009), thus these children are more likely to face the possible consequences of staying-behind. According to previous research SBC are more susceptible to mental health and behavioural problems in comparison to children with non-migrated parents (Botezat & Pfeiffer, 2014; Graham & Jordan, 2011; Tang, Wang, Hu, Dai, Xu, Yang, and Xu, 2018; Viet Nguyen, 2016; Wickramaged, Siriwardhana, Vidanapathirana, Weerawarna, Jayasekara & Pannala, 2015; Wu, Lu & Kang, 2015). However, it is nearly impossible to hold the migrated parents accountable for the possible consequences on SBC, as migration for them might be perceived as the only possible way to increase their financial resources and the quality of life of their household.

In fact, many nation-states have taken upon themselves to guarantee their children's well-being. The Nepalese government did so when it ratified the *United Nations Convention on the Rights of the Child* (1989) (UNCRC) on September 14th, 1990. This human rights treaty obligates the government to “ensure the children's [...] protection and care as is necessary for his or her well-being” (UNCRC Art. 2 par. 3). Hence, the government of Nepal must secure that each child in the country has access to resources that contribute to the development of their social, spiritual, and moral well-being; as well as their physical and mental health (UNCRC Art. 17), including those living in the Chitwan District. However, to provide these SBC with the protection and care that they are legally entitled to, it is imperative to understand what are the consequences that parental migration can have on their well-being. Particularly regarding *Stayed-Behind Girls* (SBGs), as they have shown to be more affected by parental migration due to existing cultural norms about gender and systems of oppression (Oliveira, 2013; Wen & Lin, 2012).

Focussing on SBGs in the Chitwan District, this pilot study further investigates the influence that parental migration can have on their *Subjective Well-Being* (SWB). In order to do this, the research looks at the differences between SBGs and non-SBGS (intergroup), as well as the differences among SBGs (intragroup) due to different types of parental migration (domestic,

international, mother-based, and father-based), type of school (private or public), and the SBGs' age when the parent(s) first migrated. To explore the possible consequences and differences a quantitative self-administered survey was conducted on girls from ages 12 to 16 (n=275) who go to school in the Chitwan District. The goal is to provide empirical evidence on the diverse effects that parental migration may have on SBGs' SWB, which can be used to demand intervention and policies from the Nepalese government to fulfil their obligations under the UNCRC.

Before continuing, it is necessary to highlight that many researches on similar topics use the term *Left-Behind Girls/Children* instead of *Stay-Behind Girls/Children*. Although on a superficial level these concepts might be referring to the same group of individuals, using *Left-Behind* implies that the children are passive victims of their parents' migration, undermining the possible positive effects and need for empowerment of the SBC (Archambault, 2010). However, the terms *Stayers* or *Stayed-Behind Children* have a more neutral connotation (Haagsman & Mazzucato, 2020). Hence, this research uses the latter with the notion that the migration of any nuclear family members (who are the primary caregivers) can have both positive and negative correlations, associations, and likelihoods on the SBC.

### ***The migration of parents***

History shows that people have always migrated; however, the motivation behind it varies over time (Graves & Linneman, 1979; Halfacree, 1995). One concise answer to why people migrate is that they consider their current location 'non-optimal', meaning that it does not meet their *subjective demands* (such as economic and social). The numbers of people searching to meet their subjective demands in countries abroad have increased as the result of the globalisation of the labour market. Prominently among migrated individuals is the focus to have a higher income than those available to them in their homeland, also called *economic betterment* (Graves & Linneman, 1979; Halfacree, 1995). A study by Bhandari (2004) in the Chitwan District in Nepal, shows that, particularly in agricultural settings, migration can improve the individuals' *relative deprivation* (a person's feeling of being deprived when they compare themselves to their peers). Bohra and Massey (2009) confirm that poverty-related migration is especially dominant in the Chitwan District, usually motivated by a will to increase human capital and economic development.

In Nepal, international and domestic migration has been vital in the absolute reduction of poverty, contributing to an overall 20% poverty reduction between 1996-2004. This is partly due to the increasing number (from 23% in 1995 to 32% in 2004) of individuals sending remittances back home. Around 17% of the total households in Nepal receive remittances (Lokshin, 2010) which directly influences the monetary goods available to the SBC. It thus becomes evident that migration for economic betterment leads to an increase in remittances which improve the perceived economic position, leads to absolute poverty reduction, and increases the financial resources available for SBC in Chitwan District. However, parents' migration can also lead to unforeseen psychosocial consequences for SBC well-being, both in the short term and in the long run (Bhandari, 2004). The following section will present a broad perspective on the possible consequences that parental migration has on the SBCs SWB.

### ***Subjective well-being***

One of the vital overarching concepts necessary to analyse the effects that parental migration has on *Stayed-Behind Children's* (SBC) is the notion of *subjective well-being* (SWB). SWB was traditionally defined as a "broad category of phenomena that includes people's emotional responses, domain satisfactions, and global judgments of life satisfaction" (Diener, Suh, Lucas & Smith, 1999, p. 277). However, currently SWB is seen as "a person's subjective evaluation of the quality of life as a whole" (Lucas, 2018, p.1), meaning that SWB allows different individuals to evaluate their perceived objective well-being differently, according to their impressions and awareness, which proves them with individual autonomy and empowerment. However, like other subjective psychometric instruments, the self-report aspect does not have an objective analysis incorporated (Lucas, 2018). The lack of objective analysis can limit the in-depth understanding of how cognitive and affective components are constructed, such as relativism. Nonetheless, SWB is broadly considered to be a highly reliable and valid concept to understand the well-being of individuals. Making it a common concept when researching the effects of parental migration on SBCs.

Previous studies using SWB discovered that among SBC the prevalence of mental health problems was higher with 43.4% (n = 1663) compared to 30.8% among non-SBC (n = 1683) (Tang et al., 2018; see Graham & Jordan, 2011). However, other research has shown that parental migration could also have positive effects on SBCs. For instance, financial remittances provide SBCs with the ability to enrol at (prestige) private schools (which is seen as a significant advantage compared to the commonly inadequate funding of public schools). Going

to a private school leads to an increase in SBCs' educational satisfaction (Parreñas, 2005), it decreases dropping out of school (Edwards & Ureta, 2003), and it creates a positive perspective of the future (McNair & Johnson, 2009). Thus, going to a private school, due to an increase in economic resources, has a direct influence on increasing the SBC's SWB.

Furthermore, SWB can be influenced by the SBC's age of when the parent(s) migrated, as the parental migration in early childhood (<6 years old) can cause less stress and feeling of deprivation in contrast to parental migration in late childhood (9-12 years old) (Jia, Shi, Cao, Delancey & Tian, 2010). In addition, SWB is also differently influenced by the domestic and international parental migration. As domestic migration leads to higher frequency of the SBC's interactions with their migrated parent(s), both physically and virtually, which can lead to a higher SWB (Huang et al., 2015). Thus, while previous studies have documented predominantly the negative consequences and effects of parental migration on SBCs' SWB, positive consequences and effects have also been found. But there can also be a gender difference in the degree of impact between stayed-behind boys and girls, which will be discussed in the next section.

### ***Gender difference stayed-behind children***

Currently, there is a gap in the empirical evidence that accounts for how parental migration affects differently SBC based on their gender. However, it is known that due to cultural norms on gender in societies there are variabilities in the way sons and daughter experienced this (Wen and Lin, 2012). For example, a research by Oliveira (2013) shows that when only the mother migrates (mother-based migration) SBGs behave better at school and get higher grades than non-SBGs, the opposite of *Stayed-Behind Boys* (SBBs). She explains that the difference is caused by the cultural factors of gender which result in girls wanting to please their migrated mothers, as they are more susceptible to their mothers' demands compared to boys. The study also found that SBGs were more obedient than SBBs in taking care of other individuals in their household.

Furthermore, specific studies on SBGs' SWB have found that they experience higher levels of depression, socio-emotional maladjustment, behavioural problems, and lower physical health and cognitive abilities in comparison to their non-SBGs peers (Botezat & Pfeiffer, 2014; Viet Nguyen, 2016; Wickramaged et al., 2015; Wu, Lu & Kang, 2015). This shows that action to safeguard the well-being of SBGs might be required, especially in areas where parental migration is popular such as in the Chitwan District. Furthermore, considering that the Nepalese society is strongly patriarchal with prescribed gender norms of behaviour and

lifestyle (Greene, 2015), parental migration might place a heavy burden on SBGs specifically. However, previous studies have focused extensively on mother-migration, disregarding the effects of father-based migration on SBGs. Hence, this study aims to understand the effect of the various types of parent migration on the SBGs in the Chitwan District in Nepal.

### ***Gender difference parental migration***

As stated before, this pilot study differentiates between mother-based, father-based, and both parental migrations. This is because the motivation and consequences on the SBGs' SWB varies between each of these types of migration. Mothers in Nepal are almost forced to participate in the global labour market as they face gender discrimination and have lower-paying jobs in the national labour market compared to their male peers (Bohra & Massey, 2009). This *feminisation of poverty*, where women are disproportionately hit compared to men, forces them to break gender-related restrictions on mobility, since migration can be their only option for family survival (Bohra & Massey, 2009). On the other hand, father-based migration can also be rooted in poverty reduction, but they do not experience the systematic gender discrimination that mothers do.

Nonetheless, the increase in mother-based migration has actively contributed to poverty reduction in Nepal (Bhadra, 2007). The high amount of financial remittances among these migrated mothers is due to their high altruism, which relates to them caring about the well-being of the receivers (Bhadra, 2007). This is also visible in the common motivation for migrating: "to provide a better life for their children" (Bhadra, 2007, p. 56). Besides boosting a household's purchasing power, mother-based migration can also bring several *social remittances*, such as female empowerment and an increase in self-esteem among women, which are an important vehicle for their social mobility (Romano & Traverso, 2019). A study by Macours and Vikis (2010) found that shock-driven mother-based migration (commonly as a response to an exogenous shock) can have a positive influence on early cognitive development of SBGs, which is caused by the intra-household empowerment and increase in income. However, the same study found that the (temporary) lack of parenting may cause adverse early childhood development effects on the psychosocial health and well-being of the SBGs.

Thus, mother-based migration can be perceived as a 'double-edged sword': while income and empowerment increase positively, there can be adverse effects on SWB of the SBGs. Currently, academic research on father-based migration solely focus on the financial remittances. However, none take in consideration if it brings any social remittances for the

SBGs. The same situation applies for studies on both parents' migration. Therefore, this study considers essential to look also into how these two categories influence the SWB of SBGs.



## **Research question and Hypotheses**

The main goal of this research is to provide empirical evidence of the consequences that the different types of parental migration have on the SBGs' *Subjective Well-Being* (SWB). This evidence can then be used to demand intervention and policies from the Nepalese government to fulfil their obligations under the UNCRC. In order to operationalize SWB, this research uses *Quality of Life* (QoL) as it has proven to be an appropriate measurement of SWB (Salvador-Carulla, Lucas, Ayuso-Mateos, & Miret, 2014). To do so the average of ten domains of QoL are used: physical well-being, psychological/emotional well-being, self-care and independent functioning, educational functioning, interpersonal functioning, social-emotional support, community and services support, personal fulfilment, spiritual fulfilment, and global perception of QoL. Using the 'average QoL' allows individuals to conceptualise their SWB according to their own cultural frame, setting, and context (Mezzich, Cohen, Ruiperez, Banzato & Zapata-Vega, 2011).

Based on previous research and the giving theories and context, it can be expected that there is a difference in the SWB of girls whose parents migrated and those whose parents did not. However, it is unknown if SBGs with a higher 'average QoL' are more likely to have a parent that migrated domestic or international. Also, the difference in the 'average QoL' between father-based, mother-based, and both-parental migration has not been investigated yet. That is why this pilot study focusses the inter- and intragroup differences among SBGs, which is imperative to make progress in understanding the consequences of parental migration on the SBGs' SWB. Based on this breach in evidence, this pilot research aims at answering the following research question: *What is the influence of different types of parental migration, as well as school type and age, on the subjective well-being of stayed-behind girls in the Chitwan District, Nepal?*

With the assumption that girls who have a migrated parent will report different SWB compared to the girls who have both parents living with them at home, the following three hypotheses were executed.

Resulting from previous research (Botezat & Pfeiffer, 2014; Graham & Jordan, 2011; Tang et al., 2018; Viet Nguyen, 2016; Wickramage et al., 2015; Wu, Lu & Kang, 2015) a negative influence of parental migration on QoL is expected, resulting in the hypothesis:

- (1) The 'average QoL' is higher among non-SBGs than SBGs.

The type of parental migration, being domestic or international, may have an impact on the girls' QoL, as it can directly impact the type and frequency of contact, physical and digitally (Huang et al., 2015), between the parents and daughter:

(2) SBGs with a lower-rated 'average QoL' are more likely to have an internationally migrated parent(s) in comparison to girls with domestically migrated parent(s).

Quantitative studies reported that mother's migration increases the household's income and empowerment of their daughters, but there are several negative consequences on the QoL of the SBGs (Romano & Traverso, 2019):

(3) There is a difference between the 'average QoL' score of the four groups of girls with different parental migration: the "no-parents migrated", "both parents migrated", "mother migrated", and "father migrated".

Additionally, to the three main hypotheses, two other hypotheses were created to gain insight into the possible effects of type of school as well as age of the SBGs when the parent(s) migrated.

The type of school, private or public, may have an impact on the SBGs' QoL, as going to a private school can increase their educational satisfaction (Parreñas, 2005) and their educational expectations (Edwards & Ureta, 2003), hence:

(4) SBGs with a higher 'average QoL' are more likely to go to a private school in comparison to SBGs who go to a public school.

It is expected that the younger the SBGs are when the parent(s) migrated the higher their current 'average QoL' is (Jia, Shi, Cao, Delancey & Tian, 2010). This means that LBGs with early childhood parental migration have a higher 'average QoL' compared to late childhood parental migration LBGs:

(5) The 'average QoL' decreases with the increase of SBGs age of when the father (5a) or mother (5b) migrated

## Methods

### Setting

This pilot study was carried out at six different high schools in the Chitwan District, in collaboration with a researcher from the Oxford college of Engineering and Science, Nepal. The Chitwan District has a population of nearly 600.000 (Nepal, 2014) and is famous nationally for its commercial activities and health care, and internationally for tourism, but its local residents are still predominantly farmers (Paudel & Matsouka, 2008).

### Participants

To participate in this study, all the girls had to give assent and their main caregiver had to give consent. Two hundred eighty-six girls voluntarily participated in the research by filling in the survey. They were all high school students (age 12-16) in grades six to ten. Of the responses, 11 were removed, as a large amount of their answers were missing. In the final sample consists of 275 participants of which 122 have one or two parents who migrated domestically or internationally (see table 1). The biggest parental migration group is father-based international (31.6%) and domestic (20%). Mother-based migration is limited with 3% international and 0.4% domestic. Additionally, there are 4% of mothers who migrated together with the fathers (see table 1). The host countries of the migrated parents are often in the Middle East (Dubai, Saudi-Arabia, Qatar, Bahrain, Kuwait), but also Japan, Malaysia, and the neighbouring country of India were prominent (see image 1). The sample has a diverse group of castes, with more than 16 different ethnic/caste groups represented. The dominant caste is Brahman and Chhetri with 46,5%, followed by many small groups such as Dalit with 7,6% and Janajati with 6.3% (see table 2).

Table 1

*Parental migration status*

Migration status	N (%)
No migrated parents	153 (52,4)
Both parents migrated	
Domestic	2 (,7)
International	9 (3,3)
Fathers migrated	
Domestic	20 (7,3)
International	87 (31,6)
Mothers migrated	
Domestic	3 (1,1)
International	1 (,4)



Total 275 (96,7)

*Image 1: Word cloud location migrated parents*

Table 2

*Caste of participants*

Caste	N (%)
Brahman and Chhetri	128 (46,5)
Chaudhary	7 (2,5)
Dalit	21 (7,6)
Gurung	10 (3,6)
Hindu	3 (1,1)
Janajati	17 (6,2)
Khatun	3 (1,1)
Kumal	2 (,7)
Magar	13 (4,7)
Muslim	5 (1,8)
Newar	11 (4)
Tamang	7 (2,5)
Tharu	9 (3,3)
Other	25 (9,1)
Total	261 (94,9)

### **3.3 Instrument and quality of instruments**

*Quality of Life:* To measure SWB, many have opted to use QoL as it is considered to accurately capitalise the subjective aspects of well-being in its definition of a "person's perception of [their] position in life within the context of the culture and value systems in which he/she lives and in relation to his/her goals, expectations, standards, and concerns" (Group, 1994, p.26). As explained before the underlying ideology behind SWB and QoL is that everyone distinct cultures, settings, and contexts conceptualises their QoL differently. This characteristic is what makes QoL suitable to use in the culturally diverse Chitwan District, allowing to provide a deeper understanding of the consequence of parental migration on SBGs.

*Self-administered survey:* The survey was developed based on the adaptation of an existing index (Multicultural Quality of Life Index), on previous quantitative studies, and the insights given by the collaborative researcher in Nepal. Due to the wide variety of castes/ethnic groups, the participants had different mother-tongue languages; however, all of them went to a school where the medium of instruction is Nepali and English. To increase the clarity of the survey, and guide the participants in answering the questions, the survey was provided in

both English and Nepali on the same page (the complete survey can be found in Appendix 1). In addition, by choosing a self-administered survey the 'interviewers' effect' is limited, which can create biases in the interviewees' answers as the participants might have the tendency to exhibit social desirable answers due to the interviewer's ethnicity, gender and social background in oral-administration (Bryman, 2016).

*Background information:* The survey starts with eight questions on demographics (i.e., age, grade, ethnic groups), which aim at collecting background information about the participants. These questions were followed up by two sections: 'migration status mother' and 'migration status father'. These sections only had to be filled in if their father or mother migrated domestically or internationally. Both parts contained six identical questions about the parent(s) migration (i.e. to which country did your [mother/father] migrate to; how often does your [mother/father] visit you).

*Scale:* This pilot study opted for using one existing index, *the Multicultural Quality of Life Index* (MQOLI), which limits the risk of emotional distress by elimination any unnecessary questions for the adolescence. The scale was chosen explicitly for proven comprehensiveness, self-ratedness, cultural sensitivity, practicality, and psychometric soundness in its assessment, but also do to the extensive use in quantitative studies in non-western societies (Mezzich, Cohen, Ruiperez, Banzato & Zapata-Vega, 2011). Hence, it provides more reliable and consistent data than with the creation of an original index.

The MQOLI is used to analyse the participants' SWB by asking the individuals to rate ten different QoL domains on a Likert scale of 1 (poor) to 10 (Excellent). The domains included in the index are: physical well-being, psychological/emotional well-being, self-care and independent functioning, educational functioning, interpersonal functioning, social-emotional support, community and services support, personal fulfilment, spiritual fulfilment, and global perception of QoL.

In this pilot study, the MQOLI showed to have a strong internal consistency ( $\alpha = .73$ ) measured with a Cronbach Alpha; and all the domains had a score between  $\alpha = 0.70$  and  $\alpha = 0.75$  which is an acceptable intercorrelation (see table 3). Also, the Spearman's correlation coefficient shows that all the domains had a moderate association and significance. Thus, considering the validity criterion, the different domains thus partly measure the same concept, QoL, with their unique aspects (see figure 1).

Table 3  
*Internal consistency MQOLI*

Domain	Cronbach Alpha
Physical Well-being	0,70
Psychological/Emotional Well-being	0,71
Self-Care and independent functioning	0,75
Educational functioning	0,71
Interpersonal functioning	0,71
Social-emotional support	0,70
Community and service support	0,70
Personal fulfilment	0,70
Spiritual fulfilment	0,71
Global perception of Quality of life	0,70
Total	0,73

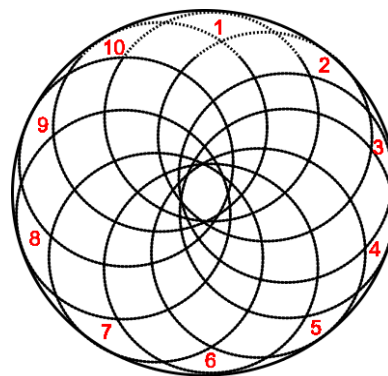


Figure 1: The 10 domains inside QoL

### **Procedure**

Before the start of the pilot study, permission from the Oxford college of Engineering and Science was needed as well as from the six school principals. The mayor of the municipality of Ratnanagar (in Chitwan District) was also informed about the pilot study, which is a standard procedure in developing regions in South-Asia. The schools provided the parents/primary caregivers of the participating girls with an information letter and consent form (see Appendix 2) which extensively explained the purpose of the study as well as the voluntary and anonymous participation. The girls themselves also received an information letter and an assent form which clearly emphasised the voluntary and anonymous participation (see Appendix 3). Only those girls whose parents and themselves agreed with the participants were invited to fill in the survey.

The execution of the survey happened during a school day around the lunch break. Before the start of the survey, the collaborating researcher informed the girls in Nepali about the purpose of the pilot study, as well as the vitality of answering the questions honestly. In total answering the survey took approximately 30 minutes. At the first school there was confusion about the formulation of certain questions in Nepali, which led to several interruptions as well as interpersonal conversations between the participants. However, by providing verbal guidance through the survey in Nepali, the frequency of interpersonal

conversations was limited in the other 5 schools. After the participation, the girls were verbally thanked.

### ***Inferential tests and quality of data***

In the analyses, the Statistical Package for Social Sciences for Windows (SPSS) 26th edition was used. To ensure that no assumptions of the tests were violated, preliminary checks were executed (Sample size, normality, and multicollinearity). This is vital in a quantitative study and should not be limited as it provides evidence of the validity of the results themselves (Norris, Plonsky, Ross & Schoonen, 2015), causing the argumentation of each tests to be rather extensive. As mentioned before in the scale section, Cronbach Alpha and Spearman correlation coefficient were executed to determine internal reliability and discriminatory validity. In all tests, the groups showed independence of observation, and the differences were considered significant at level  $p = .05$ .

Table 4

#### *Analysis scheme*

Hypothesis	Independent variable	Scale predictor	Dependent variable	Scale response	Type test	Inferential Test
1	Parental migration (Yes / No)	Dichotomous	Average QoL	Interval	Group differences	Mann-Whitney U test
2	Average QoL	Interval	Parental migration type (Domestic / International)	Dichotomous	Predictor	Binominal logistic regression
3	Groups of parental migration type	Nominal	Average QoL	Interval	Group differences	Kruskal-Wallis H
4	Average QoL	Interval	School type (Private / Public)	Dichotomous	Predictor	Binominal logistic regression
5a	Age of SBG when mother migrated	Ratio	Average QoL	Interval	Predictor	Simple linear regression
5b	Age of SBG when father migrated	Ratio	Average QoL	Interval	Predictor	Simple linear regression

A Mann-Whitney U test (see table 4) was executed to determine if there is a statistic difference in median of 'average QoL' between SBGs and non-SBGs. A non-parametric test was used because the parametric t-test did not meet the needed assumptions, as five significant outliers were found in the SBG group and the data were not normally distributed as assessed by Shapiro-Wilk's test ( $p < .05$ ). The data did meet all the assumptions of the Mann-Whitney U test, including the distribution when visually inspected.

Two Binary logistic regressions (see table 4) were executed to determine (1) if lower 'average QoL' of SBGs can be associated with an increased likelihood of having international



migrated parents or domestic migrated parents; and (2) to determine if SBGs with a higher 'average QoL' are more likely to go to a private school or a public school. In both tests the independent variables showed insignificance in the Box-Tidwell ( $p = <.05$ ), meaning that the relationship between the predictors and the logit is linear, making it suitable for binary logistic regressions. In all cases the linearity of the continuous variables (with respect to the logit of the dependent variable) was assessed via the Box-Tidwell procedure (Box & Tidwell, 1962). A Bonferroni correction was applied using the two terms in the model, resulting with the statistical significance being accepted when  $p < .05$  (Tabachnick & Fidell, 2014). Based on this assessment, the independent variable 'average QoL' was found to be linearly related to the logit of the dependent variables: Type of parental migration (Domestic/International) and school type (Private/Public). In both tests, no outliers were found.

A Kruskal Wallis-H test (see table 4) was used to determine if there is a statistical difference between the 'average QoL' of four groups of girls with different parental migration: the "no-parents migrated", "both parents migrated", "mother migrated", and "father migrated", with the goal to determine if SBGs who have a migrated mother have a lower or higher 'average QoL' than the SBGs with a migrated father. The Kruskal Wallis-H test was used instead of the parametric ANOVA as the 'average QoL' was not normally distributed for the groups "father migration" and "no parental migration", as assessed by Shapiro-Wilk's test ( $p < .05$ ). Also, the group 'father migration' contained four outliers, but no extreme outliers were found in any of the groups (see boxplot 1). The outliers were not removed, as there was no difference in results between removing them or keeping them.

Finally, two simple linear regression (see table 4) was used to determine whether there is a linear relationship between age of SBG when the mother (5a) or father (5b) migrated and 'average QoL' (y). Visual inspection of these two plots indicated a linear relationship between the variables. There was homoscedasticity and normality of the residuals. With father-based migration, one participant was an outlier with an average Quality of Life of 5.0, with mother-based migration, one participant was one outlier with an average Quality of Life of 4.0. They were removed from the analysis due to not representing the target population.



## Results

This section presents the findings of this pilot study. First, the descriptive results are given of the demographic data and the 'average QoL' scores in the different groups of parental migration status. Secondly, the results of the five inferential statistics tests are given categorized by each hypothesis

### *Descriptive*

The descriptive of this pilot study describes the basic features (mean and standard deviation) of the data, which provides simple summaries of the sample and the measures. Based on the descriptive data, the girls who participated in the study (n= 275) show an equal distribution between their school type, with private-school enrolment being 59.2% among the SBGs and 54,9% among the non-SBGs girls and public-school enrolment being 40.8% among SBGs and 45.1% among non-SBGs. Regarding the age of the participants, the mean age of the sample is 13,79 years (SD =1.088). When comparing the SBGs (M=13.77, SD =1.104) and the non-SBGs (M= 13.81, SD =1.078), the mean age is similar. This also means for the grade (school year) between the grade (school year) of the SBGs (M= 7.98, SD =0.983) and non-SBGs (M= 7.82, SD =0.963) (see table 5).

Table 5  
*Demographic data of participants*

Variable	SBG N=122		Non-SBG N=153		Total N= 275	
	N (%)	M (SD)	N (%)	M (SD)	N (%)	M (SD)
School type						
Private	77 (59,2)		79 (54,9)		156 (56,7)	
Public	53 (40,8)		65 (45,1)		118 (42,9)	
Age	122 (44,2)	13,77 (1,104)	153 (55,8)	13,81 (1,078)	275 (100)	13,79 (1,088)
Grade	122 (44,2)	7,98 (,983)	153 (55,8)	7,82 (,963)	275 (100)	7,89 (,973)

The descriptive statistics of 'average QoL' score between the SBGs and Non-SBGs shows that the 'average QoL' (the mean of all the ten domains) is more 'excellent' among SBGs (M=8.12, SD=1.049) in comparison to non-SBGs (M=7.931, SD=1.243). In both groups, the mean is not vastly different when keeping in mind that the scoring was on a 1-10 Likert scale.

Interesting is the difference of means in the intragroup of SBGs. The descriptive results show that SBGs who have both parents working abroad rate their overall QoL higher than SBGs with father-based or mother-based migrated (see table 6). SBGs who only have a father migrated domestically show a lower 'average QoL' ( $M=8.01$ ,  $SD= 1.357$ ) when compared to their peers who have only an internationally migrated father (see table 6). However, the difference, again, is rather small.

Table 6  
*Mean score and standard deviation of variables*

Migration status parents		Average QoL
		M (SD)
No Migration (Non-SBGs)	$N=153$	7.93 (1.243)
Parents Migrated (SBGs)	$N=122$	8.12 (1.049)
Both parents migrated		
Domestic	$N=2$	9.5 (.707)
International	$N=9$	8.83 (.412)
Only father migrated		
Domestic	$N=20$	8.03 (1.357)
International	$N=87$	8.1 (.887)
Only mother migrated		
Domestic	$N=1$	8.5 (NA)
International	$N=3$	6.17 (2.06)
Total	$N=275$	8,01 (1.163)

### ***Hypotheses testing***

#### *(1) QoL median between SBGs and non-SBGs*

A Mann-Whitney U test was run to determine if there were differences in average Quality of Life median between SBGs and non-SBGs. Distributions of the 'average QoL' for SBGs and non-SBGs were similar, as assessed by visual inspection. Quality of Life was not statistically significantly different between non-SBGs ( $Mdn = 8.2$ ) and SBGs ( $Mdn = 8.4$ ),  $U = 10012$ ,  $z = 1.037$ ,  $p = .300$ . Thus, while the 'average QoL' median is higher with non-SBG compared to SBG, this difference is not statistically significant.

Table 7  
*Mann-Whitney U median report*

Parental migration	Quality of Life
Stayed behind girls	8.2
Non- Stayed behind girls	8.4

Total	8.3
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(2) *Domestic migration versus International migration*

Binomial logistic regression was performed to ascertain the effects of 'average QoL' on the likelihood that SBGs have an internationally migrated parent(s) in comparison to having a domestic migrated parent(s). The logistic regression model was statistically insignificant,  $\chi^2(1) = .394, p = .53$ . The Hosmer and Lemeshow test show that the model has a poor fit,  $\chi^2(8) = 8.776, p = .362$ . The model explains 0.5% (Nagelkerke R<sup>2</sup>) of the variance in parental migration and correctly classified 77.9% of cases. Sensitivity was 100%, specificity was 0%, positive predictive value was 95% and negative predictive value was 0%. The predictor was statistically insignificant (see table 8). Thus, based on the results, 'average QoL' is not a significant predictor of the type of parental migration (domestic or international).

Table 8

*Binomial logistic regression predicting parental migration based on Average QoL*

	B	SE	Wald	df	p	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
Average QoL	-.136	.220	.379	1	.538	.873	.567	1.345
Constant	2.366	1.821	1.687	1	.194	10.650		

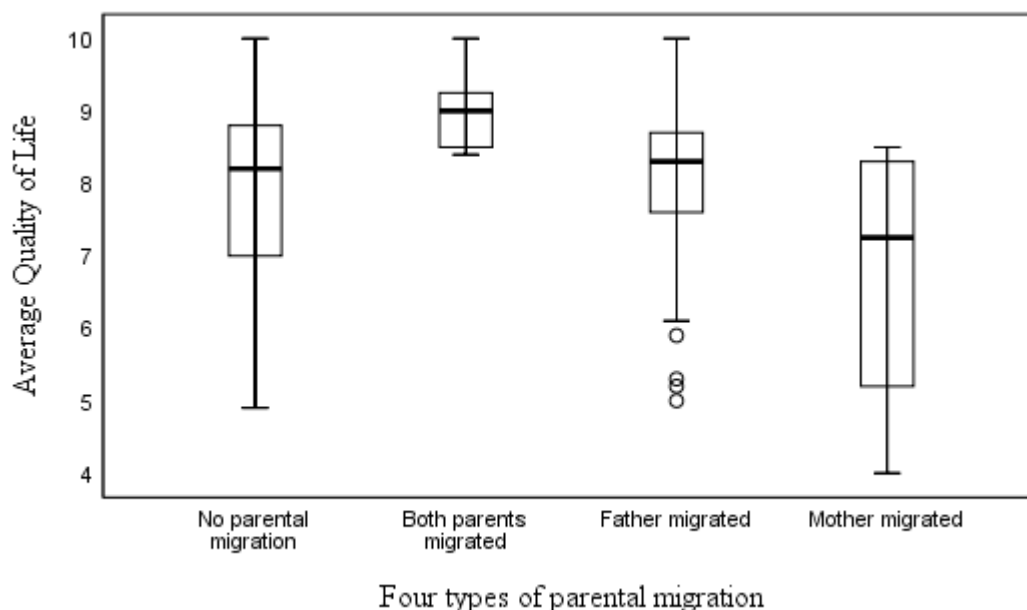
Note: 0 = Domestic migration & 1 = International migration

(3) *Influence of mothers' migration on the SBGs*

A Kruskal-Wallis H test was run to determine if there were differences in 'average QoL' between four groups of girls with different parental migration: the "no-parents migrated" ( $n = 153$ ), "both parents migrated" ( $n = 11$ ), "mother-based" ( $n = 4$ ), and "father-based" ( $n = 107$ ). Distributions of 'average QoL' scores were not similar for all groups, as assessed by visual inspection of the boxplot (see plot 1). The distributions of 'average QoL' scores were statistically significantly different between the four different groups of parental migration,  $\chi^2(3) = 11.352, p = .01$ . Subsequently, pairwise comparisons were performed using Dunn's (1964) procedure.

A Bonferroni correction for multiple comparisons was made with statistical significance accepted at the  $p < .0083$  level. This post hoc analysis revealed statistically significant differences in 'average QoL' scores between mother's migration (mean rank = 78)

and both parents migrated (mean rank = 208.14) ( $p = .03$ ), between no parental migration (mean rank = 133.56) and both parents migrated (mean rank = 208.14) ( $p = .01$ ), and father's migration (mean rank = 139.38) and both parents migrated (mean rank = 208.14) ( $p = .03$ ), but not between any other group combination (see table 9). Thus, SBGs whose both parents migrated have a higher 'average QoL' score than their fellow SBGs whose mother or father migrated and the non-SBGs.



Plot 1: Boxplot of average QoL in four types of parental migration

Table 9

Pairwise Comparisons of four types of parental migration

Sample 1-Sample 2	<i>T</i>	SE	<i>ST</i>	Adj. <i>P</i>
Mother based - No parental migration	55,562	40,260	1,380	1,000
Mother based - Father based	61,379	40,480	1,516	0,777
Mother based - Both parents migrated	130,136	46,411	2,804	0,030
No parental migration - Father based	-5,816	10,017	-0,581	1,000
No parental migration - Both parents migrated	-74,574	24,813	-3,005	0,016
Father based - Both parents migrated	68,758	25,168	2,732	0,038

#### (4) Private school versus Public school

Another binomial logistic regression was performed to ascertain the effects of 'average QoL' on the likelihood that SBGs are going to a private school in comparison to a public school. The logistic regression model was statistically significant,  $\chi^2(1) = 8.113$ ,  $p = 0.004$ . The model explained 8.8% (Nagelkerke R<sup>2</sup>) of the variance in type of school and correctly classified

63.6% of cases. Sensitivity was 25.5%, specificity was 87.8%, positive predictive value was 69.14% and negative predictive value was 78.65%. The predictor variable was statistically significant (as shown in Table 10). Increasing 'average QoL' was associated with a reduction in the likelihood of going to a public school. Thus, based on these results, SBGs with a higher 'average QoL' are more likely to go to a private school than a public school.

Table 10

*Binomial logistic regression predicting school type based on Average QoL*

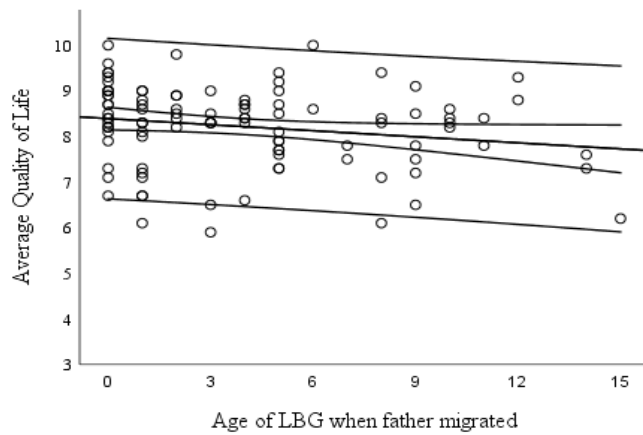
	B	SE	Wald	df	p	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
Average QoL	-.527	.196	7.250	1	,007	.591	.403	.867
Constant	3.802	1.591	5.711	1	,017	44.782		

*Note:* 0 = Private school & 1 = Public school

*(5) Correlation SBGs age of when parent(s) migrated and average QoL*

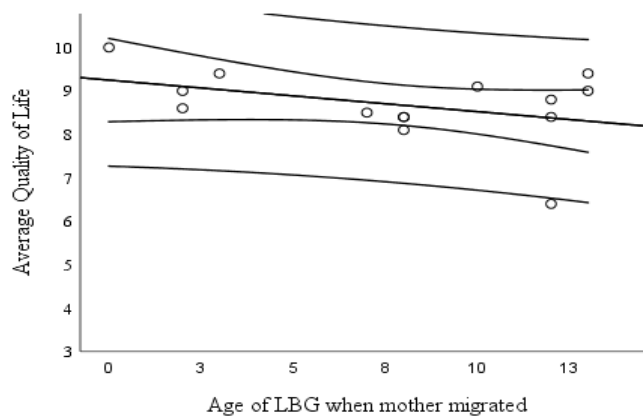
Finally, two linear regressions were run to understand the effect of age when father and mother first migrated on the 'average QoL'. Results from both tests will be presented, starting with age when father migrated.

One linear regression was run to understand the effect of age of SBG when father migrated on 'average QoL'. To assess linearity, a scatterplot of 'average QoL' against the age of SBG when father migrated with superimposed regression line was plotted (see plot 2). The prediction equation was: 'average QoL' = 8.392 - 0.044\*Age of SBG when father migrated. Age of SBG when father migrated statistically insignificantly predicted 'average QoL',  $F(1, 98) = 3.852$ ,  $p = 0.053$ , accounting for 3.8% of the variation in 'average QoL' with adjusted  $R^2 = 2.8\%$ , a small size effect according to Cohen (1988). Thus, while the prediction equation showed that 'average QoL' decreases with the increase of the age of SBG when the father migrated, there is no significant statistical linear relation between age of SBG when father migrated and 'average QoL'.



Plot 2: Simple scatterplot of Age of SBG when father migrated against average QoL

Another linear regression was run to understand the effect of age of SBG when mother migrated on average Quality of Life. To assess linearity, a scatterplot of 'average QoL' against the age of SBG when mother migrated with superimposed regression line was plotted (see plot 3). The prediction equation was: 'average QoL' =  $9.249 - 0.073 * \text{Age of SBG when mother migrated}$ . Age of SBG when mother migrated statistically insignificantly predicted 'average QoL',  $F(1, 12) = 2.195$ ,  $p = 0.164$ , accounting for 15.5% of the variation in 'average QoL' with adjusted  $R^2 = 8.4\%$ , a medium-size effect according to Cohen (1988). Thus, while the prediction equation showed that 'average QoL' decreases with the increase of the age of SBG when the mother migrated, there is no significant statistical linear relation between age of SBG when mother migrated and 'average QoL'.



Plot 3: Simple scatterplot of Age of SBG when mother migrated against average QoL

## **Discussion**

For this pilot study five hypotheses were created to answer the research question: *What is the influence of different types of parental migration, as well as school type and age, on the subjective well-being of stayed-behind girls in Chitwan District, Nepal?* Before giving an answer to this question, each hypothesis will be discussed based on the results. As stated before, the study mainly focuses on intragroup differences among SBGs; however, the intergroup difference between SBGs and non-SBGs was also analysed to create a more persuasive thesis.

The first hypothesis refers to the difference in 'average QoL' between girls with a migrated parent(s) and those that do not have migrated parents. To analyse the possible effect a Mann-Whitney U test was performed, which found that there is no significant difference in 'average QoL' between the participating girls based on their parent(s) being migrated or not, which means that parental migration is not a significant factor that influences SWB. These findings are contradictory to previous researchers, that showed negative consequences of parental migration on well-being (see Botezat & Pfeiffer, 2014; see Graham & Jordan, 2011; see Tang et al., 2018; see Viet Nguyen, 2016; see Wickramage et al., 2015; see Wu, Lu & Kang, 2015). A possible explanation of why parental migration does not influence SWB is that parental migration in general might cause both positive and negative consequences for SBGs, meaning that the remittances, such as intra-household empowerment and increased income counterbalance the negative psychosocial consequences. However, it is also possible that the girls in the Chitwan District have a unique resilience to the consequences of parental migration.

The second hypothesis deals with whether 'average QoL' is a significant predictor of domestic and international parental migration. This hypothesis was created as these forms of migration directly impact the type and frequency of contact, both physical and digital, between the parents and their daughters. However, the binomial logistic regression showed that the SBGs' 'average QoL' is not a significant predictor of those two groups. An explanation for this finding can be similar to the previous one, that the possible positive and the negative consequences are balanced in both types of migration. So, international migrated parents are able to provide more remittances while domestic migrated parents are able to have more frequent physical and digital. However, the number of SBGs who have a domestic migrated parent(s) ( $n=23$ ) is much lower in the used sample than the SBGs whose parent(s) migrated

internationally ( $n=99$ ). To increase reliability a bigger sample for SBGs with domestic migration parents would be preferred.

The third hypothesis was based on previous studies that reported that mother-based migration could have specific effects on SBGs, in comparison to the father's migration. A Kruskal-Wallis H test was executed to analyse the differences between SBGs whose both parents migrated, only their father, only their mother, and non-SBG. The post hoc analysis showed that there are three significant differences between the group 'both parents' and the three groups' father-based', 'mother-based' and 'no parental migration'. Based on the results the assumption can be made that when both parents migrate SBGs have a higher 'average QoL' than their non-SBGs peers and SBGs with a single migrated parent. Mother-based parental migration showed the lowest QoL score compared to both-parents migrated. Thus, based on the data sample, it can be concluded that the participating girls had higher SWB when both parents migrated and the lowest SWB when only the mother migrated.

These findings are interesting for researchers and policymakers in this domain, especially when looking at previous studies where several effects of mothers' migration were found, such as an increase in empowerment and self-esteem (see Bhardra, 2007), as well as an increase in social mobility (see Bohra & Massey, 2009), but negatively influences on the psychosocial development (see Ramona & Traverso, 2019). The results from this study provide a first glimpse that the consequences of parental migration can be positive on the SWB of the SBG when both parents migrate, but negative when only the mother migrates. However, this line of thought should be carefully considered as this is intended as a pilot study and there is not enough empirical evidence from other studies to make assumptions that girls will have a higher SWB when both their parents migrate.

The fourth hypothesis aims at providing insight into the significance of 'average QoL' as a predictor for the type of school. Based on previous research, economic remittances of the migrated parent(s) allow SBGs to attend a more prestigious private school. Going to such schools can provide them with a perceived better future (see Parreñas, 2005; see Edwards & Ureta, 2003; see McNair & Johnson, 2009). This perception can directly influence the SBGs' QoL rating. The results of the test confirm that girls with a higher 'average QoL' are more likely to study at a private school. Besides the above mentioned possible explanations, other reasons why the SBGs with a higher 'average QoL' are more likely to go to a private school can be that these institutions might provide support and counselling in ways that public



schools do not. However, school support and counselling are a factor that still must be researched.

The fifth and final hypothesis is regarding the linear relationship between the SBGs' age when either the father or mother first migrated and their 'average QoL'. The hypothesis was created based on previous findings that say that SWB is higher when SBGs are still in early childhood (below age 6) at the moment of their parent migration (see Huang et al., 2015). However, the scatterplots did not show a linear relationship between the variables, which means that the age of SBGs when their parent migrated does not correlate with their SWB.

The primary research question of the current study was to examine whether SBGs report different SWB compared non-SBGs as well as intragroup differences based on the type of parental migration, the type of school, and the age of SBG when a parent migrated. Based on the pilot study's results, and the assumption that QoL is a determinant of SWB, the research question can be answered with: There is no intergroup (SBGs and Non-SBGs) difference on SWB. However intragroup difference shows that SBGs with a higher SWB are more likely to study at a private school than a public school, and SBGs with both parents migrated have a higher SWB than SBGs with mother-based migration. Domestic or international migration and the age of SBG when a parent migrated are not predictors and factors that influence SWB. Thus, to summarise, parental migration does not influence the SWB of SBGs compared to non-SBGs; however, there are intra-group differences among SBGs.

### ***Limitations and future research***

The majority of the previous studies that conducted their data collection in south Asian countries or rural China focused predominantly on the negative consequences that parental migration has on the general well-being of SBGs versus non-SBGs. The presented pilot study differs from them as it focused on intragroup differences on SWB. Besides, it also considered the new line of thought regarding parental migration where the SBGs are "stayers" instead of "abandoned", which empowers SBGs as well as considers the positive consequences parental migration can have on them (see Haagsman & Mazzucato, 2020).

The executed research experienced several limitations, while some were the consequence of it being a pilot study, the most significant limitation was due to the used index in the study's setting. While the index is broadly used in different settings, there is the possibility that the

combination of the age group (12-16), ethnic diversity, economic situation, as well as the education culture, provided a non-suitable habitation for the index to give highly reliable and valid readings. One concrete cultural factor that the researchers observed (which can have influenced the data) is the high degree of collaboration among the students in the Chitwan District in Nepal, where it is common for them to help each other execute tasks. Even though the girls got instructed to fill out the survey individually, it was a common phenomenon that they would discuss questions and help each other in moments of confusion. The collaborating researcher frequently corrected this behaviour; however, the possible influences this may have had on the data cannot be ignored.

Secondly, the survey was in both English and Nepali, because the schools informed the researchers that the girls had a high proficiency in English and Nepali. However, during the execution, it became visible that their English proficiency was lower than initially communicated. In addition, there was confusion among the girls about specific words and sentences in the Nepalese text. Following this, the researchers proceeded to read the survey out loud in Nepali, however, there were still many interruptions needed for explanations.

These limitations in the survey suggest that future study in the Chitwan District must adapt any chosen index to the cultural characteristics dominant in the region. It is needed to create a culture-centred survey drawing on the cultural strengths present in the different local communities (Wallerstein, Duran, Oetzel, & Minkler, 2018). Also, to prevent the participants from helping each other, there should be enough space between them to create a physical barrier.

Furthermore, the pilot study nature of this study brings one important limitation, the sample size as it only represented a small group of SBGs. For a broader understanding of the consequences of parental migration, a bigger (national) study should be conducted. By doing this, possible influencing factors such as socioeconomic position and religion can be taken into consideration.

Based on the presented limitations and findings the following recommendations for future studies are advised: firstly, there should be longitudinal studies on SBG, which monitor the SWB over a period of time starting from the moment when the parent(s) migrates. This will provide an in-depth understanding of how the SWB changes over time, and which multitude of factors play a role in the psychosocial and educational development (such as financial remittances and care management). Secondly, besides the children also the parent's perception and experience with parental migration should be studied, doing so could provide

an insight into how the SBG is influenced by the parent's attitudes and the situation in the host country. Finally, ethnographic research is needed into the day-to-day life of the SBGs; this includes observations at the children's home situation, interviews with their social network and documenting how their environment supports their development differently than those of non-SBGs. By combining all three recommendations, an extensive and in-depth image can be given on the influence of parental migration on SBGs, which increases the validity of the study by limiting the chance of Simpson's paradox and third-cause fallacy. Ultimately this will offer government, NGOs, and schools the insights needed to protect and take care of every child's well-being.

### ***Implications and concluding remarks***

Implications from the pilot study are twofold, including the theoretical aspects and influence on policies and interventions. For its theory, the findings show that the assumed effects of parental migration on SBG' SWB only partly correlate with the results. The pilot study provides contradictory empirical evidence that the difference between SBGs' and non-SBGs' SWB is insignificant. However, the difference between mother-based and both parental migration, and private and public school is significant. But more empirical studies are needed to strengthen the given assumptions. Ultimately, the findings create a need for a critical reflection upon assumed essentialist notions of parental migration (negative) effects on SWB, which is in line with the proposed shift from left-behind to stay-behind girls. Also, methodologically, the study shows the selected capability of the MQOLI index (Mezzich et al., 2011) in this study's setting, arguing for the need of qualitative insights into the south-Asian situation unique cultural factors, as they are vital for the suitability and development of an adequate survey and reliability and valid results.

The result also provides researchers working in the field of policies and interventions with a critical discussion upon assumptions based on previous studies on SBGs and SBC. The study offers them with empirical evidence that the consequences of parental migration are a double-edged sword; it has both negative as positive consequences on the SBGs, which can initiate policymakers and intervention researchers to study the local effects of parental migration. Ultimately, as stated in the introduction, the pilot study aims to contribute to the empirical body that can help in providing adequate support for disadvantaged youths (among whom SBGs), by demanding intervention and policies from the Nepalese government to fulfil their obligations under the UNCRC.

Concluding, the current study offers a new perspective on the consequences of parental migration on SBGs, where different variations of parental migration seemed to influence SBGs' SWB positively. Although this study is a pilot that will provide fuel for future studies, there is a prominent need for critical analysis of previous empirical studies and currently accepted causations regarding parental migration. By doing so, the aim to provide the SBC with the protection and care they legally deserve can be achieved.

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Appendix 1: Questionnaire

ID: 186

Survey questionnaires

Part 1: Basic information

QNO 1-1: What is your current school? तपाईंको हासको कुन कुन वर्गमा पर्छ ?  
 a) Private  b) Public or governmental

QNO 1-2: In which grade are you currently? तपाईं हाल कुन कक्षामा पढ्नु हुन्छ ?  
 Grade 7 b) Grade 8 c) Grade 9 d. Grade 10

QNO 1-3: How old are you? तपाईं कति वर्ष हुनुभयो ? 14

QNO 1-4: How many members are in your core family (including parents and siblings)? तपाईंको परिवारमा कति कति हुन्छन् ? a) 2 b) 3  4

QNO 1-5: In which type of area is your home? तपाईंको बासस्थान कुन क्षेत्रमा पर्छ ?  
 a) Eastern Chitwan b) Central Chitwan  c) Western Chitwan

QNO 1-6: Who is your closest family member? तपाईंको आफ्नो परिवारमा सबै भन्दा नजिकको मानिस कसलाई ठान्नुहुन्छ ? Please state: Mother

QNO 1-7: Who is the main caretaker of your family at this moment? अहिले तपाईंको देखिचार कसले गर्नुहुन्छ ? a) Mother b) Father  c) Other family members or relatives (please indicate) अरु परिवार का सदस्य वा नजदार d) Neighbours (please indicate) अन्य कोहि भन्दा उल्लेख गर्नुहोस्

QNO 1-8: What is your ethnic background?  
 a) Dalit दलित  b) Janajati जनजाति (please indicate) c) Brahman and Chhetri ब्राह्मण/क्षेत्री

d) Other अन्य (please indicate)

QNO 1-9: Which language(s) can you speak?  
 Nepali b) Mother language (please indicate) अन्य भास  
 c) English d) Other language (please indicate)

QNO 1-10: In which language(s) do you communicate with your mother? तपाईं आफ्नु आमा संग कुन भाषामा कुरा गर्नुहुन्छ ? Zhurung language

QNO 1-11: In which language(s) do you communicate with your father? तपाईं आफ्नु बुबा संग कुन भाषामा कुरा गर्नुहुन्छ ? Zhurung language

Part 2: Parent's status

Mother

QNO 2-1: Does your mother work at this moment? हाल तपाईंको आमा काम गर्नुहुन्छ ?  
 She works at this moment -> continue with QNO 2-1-a हाल मेरो आमा काम गर्नुहुन्छ भने 2-1a मा जानुहोस्  
 b) She does not work -> continue with QNO 2-2 हाल मेरो आमा काम गर्नुहुन्न भने 2-2 मा जानुहोस्  
 c) I don't know -> continue with QNO 2-2 थाहा छैन भने 2-2 मा जानुहोस्

QNO 2-1-a: Where does your mother work? तपाईंको आमा कहाँ काम गर्नुहुन्छ ?  
 Chitwan region चितवनमा -> continue with QNO 2-2  
 b) Not Chitwan, but in Nepal? चितवन बाहिर नेपालमा (region name)  
 c) Outside of Nepal? नेपाल बाहिर कुनै देशमा (country name)  
 d) I don't know थाहा छैन

QNO 2-1-b: How old were you when your mother started to work outside of Chitwan or abroad? तपाईंको आमाले चितवन बाहिर काम गर्न थाल्दा तपाईं कति वर्षको हुनुहुन्थ्यो? ..... 6 years old

QNO 2-1-c: If applicable, how often does your mother visit you?  
 a) Daily दैनिक  
 b) Weekly प्रति हप्ता (times/week)  
 Monthly प्रति महिना (times/month)  
 d) Seasonally मौसम अनुसार (times/season)  
 e) Yearly वार्षिक (times/year)  
 f) Once per प्रति वर्ष (times/year)

QNO 2-1-d: If applicable, how many times per week does your mother contact you?  
 a) Daily दैनिक  
 b) Weekly प्रति हप्ता (times/week)  
 c) Monthly प्रति महिना (times/month)

d) Seasonally मौसम अनुसार (times/season)  
 e) Yearly वार्षिक (times/year)

QNO 2-1-e: If applicable, how does your mother contact you? Multiple options possible तपाईंको आमाले तपाईंलाई कुन माध्यमबाट सम्पर्क गर्नुहुन्छ ?  
 a) Landline phone फोन सेट बाट  b) Skype  c) Viber  d) Messenger  e) Mobile Phone  
 f) Social media सामाजिक संजाल बाट (Please indicate) एकको नाम लेख्नुहोस्  
 g) Other, she contacts me through अन्य बाट (Please indicate) एकको नाम लेख्नुहोस्

g) Other, she contacts me through अन्य बाट (Please indicate) एकको नाम लेख्नुहोस्

We would like to invite you to participate in a following up research to share and discuss your experience about your mothers' working outside Chitwan within a focus group, के तपाईं आफ्नु आमाको चितवन बाहिरको कामको बारेमा फोकस ग्रुपमा बसेर छलफल गर्न तयार हुनुहुन्छ ?

a) Yes -> Please contact the researchers for the further information who will present in your class. अरु कुरा थाहा पाउन कक्षमा उपस्थित अनुसन्धानकर्ता संग सौधुहोस्  
 b) No

Thank you for your consideration. Please continue this questionnaire to Part 3. धन्यवाद अब पार्ट 3 मा जानुहोस्

Father

QNO 2-2: Does your father work at the moment? तपाईंको बुबा अहिले काम गर्नु हुन्छ ?  
 He works at this moment -> continue with QNO 2-2-a गर्नु हुन्छ भने 2-2a मा जानुहोस्  
 b) He does not work उहाँले काम गर्नुहुन्न -> continue with QNO 2-3 गर्नु हुन्न भने 2-2a मा जानुहोस्  
 c) I don't know थाहा छैन -> continue with QNO 2-3 गर्नु हुन्न भने 2-2a मा जानुहोस्

QNO 2-2-a: Where does your father work? तपाईंको बुबा कहाँ काम गर्नुहुन्छ ?  
 Chitwan region चितवन भित्र काम गर्ने भए पार्ट 3 मा जानुहोस् -> continue with QNO in Part 3  
 b) Not Chitwan, but in Nepal चितवन मा बाहिर तर नेपाल भित्र c) Outside of Nepal, नेपाल बाहिर भए कुन देशमा काम गर्नुहुन्छ (country name) d) I don't know थाहा छैन

QNO 2-2-b: How old were you when your father started to work outside of Chitwan or abroad? तपाईंको बुबा ले चितवन बाहिर वा विदेशमा काम गर्न सुरु गर्दा तपाईं कति वर्षको हुनुहुन्थ्यो ? 3 years old

QNO 2-2-c: If applicable, how often does your father visit you? a) Daily दैनिक b) Weekly प्रति हप्ता (times/week) c) Monthly प्रति महिना (times/month)  
 d) Seasonally मौसम अनुसार (times/season) e) Yearly वार्षिक (times/year)  
 f) Once a year बर्षमा एक पटक (times/year)

QNO 2-2-d: If applicable, how many times per week does your father contact you?  
 Daily दैनिक b) Weekly प्रति हप्ता (times/week)  Monthly प्रति महिना (times/month) d) seasonally मौसम अनुसार (times/season) e) Yearly वार्षिक (times/year)

QNO 2-2-e: If applicable, how does your father contact you? Multiple options possible  
 a) Landline phone फोन सेट बाट  b) Skype  c) Viber  d) Messenger  e) Mobile Phone f) Social media सामाजिक संजाल बाट (Please indicate) एकको नाम लेख्नुहोस्

Focus group

We would like to invite you to participate in a following up research to share and discuss your life experience after your mothers' working outside Chitwan within a focus group.  
 के तपाईं आफ्नु आमाको चितवन बाहिरको कामको बारेमा फोकस ग्रुपमा बसेर छलफल गर्न तयार हुनुहुन्छ ?

c) Yes -> Please contact the researchers for the further information who will present in your class. अरु कुरा थाहा पाउन कक्षमा उपस्थित अनुसन्धानकर्ता संग सौधुहोस्  
 d. No

Thank you for your consideration. Please continue this questionnaire to Part 3. धन्यवाद अब पार्ट 3 मा जानुहोस्

Part 3: Well-being

Please indicate how strongly you agree with the following statements.

1. Physical Well-being (शारीरिक कल्याण) I feel energetic, free of pain and physical problems म सक्रिय छु र मेरो शरीरमा कुनै किसिमको दुख र कष्ट को महसुस छैन

Poor Excellent

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----



3. Most of my classmates like to do math because it is easy (अधिकांश सहपाठीहरू गणित गर्न मन पराउँछन् किनकि नौकै यो सजिलो हो।) 1 2 3 4

4. I would get better grade if my teacher liked me better (यदि मेरो शिक्षक मलाई पराउनु भयो भने म राम्रो नम्बर ल्याउन सक्छु।) 1 2 3 4

5. Most of my classmates work harder on their homework than I do (मेरा अधिकांश सहपाठीहरू उनीहरूको गृहकार्यमा म भन्दा कडा परिश्रम गर्छन्।) 1 2 3 4

6. I am a good science student (म विज्ञानको एक राम्रो विद्यार्थी हुँ।) 1 2 3 4

7. I will graduate from high school (म हाई स्कूलको शिक्षा पूरा गर्नेछु।) 1 2 3 4

8. I always get good grades when I try hard (म लडिने पनि राम्रो ग्रेड प्राप्त कडा मेहनत गर्छु।) 1 2 3 4

9. I sometimes think an assignment is easy when the other kids in class think it is hard (काहिलेकोही मलाई लाग्छ यो असाइनमेन्ट सजिलो हुन्छ जब कक्षाका अन्य साथीहरूले यो कठिन हो भन्ने सोच्छन्।) 1 2 3 4

10. Sometimes I think an assignment is easy when the other kids in class think it is hard (काहिलेकोही मलाई लाग्छ यो असाइनमेन्ट सजिलो हुन्छ जब कक्षाका अन्य साथीहरूले यो कठिन हो भन्ने सोच्छन्।) 1 2 3 4

11. I am a good social studies student (म एक राम्रो सामाजिक विषयको विद्यार्थी हुँ।) 1 2 3 4

12. Adults who have good job probably were good students when they were kids (यसहरूले राम्रो रोजगार प्राप्त गरेकाछन् तिनीहरू बच्चा राम्रो विद्यार्थीहरू थिए।) 1 2 3 4

13. When I am old enough, I will go to college (जब म उमेर पारुँ अनि म कलेज जानुँ।) 1 2 3 4

14. I am one of the best students in my class. (म मेरो कक्षाका सबै भन्दा राम्रो विद्यार्थी हुँ।) 1 2 3 4

15. No one cares if I do well in school (मैले स्कूलमा राम्रो गरेमा पनि कोही पनि वास्ता गर्दैन।) 1 2 3 4

16. My teacher thinks I am smart (मेरो शिक्षकले म चतुर छु भनिन्छ।) 1 2 3 4

17. It is important to go to high school (कलेज सक्नु महत्वपूर्ण छ।) 1 2 3 4

18. I am a good math student. (म एक राम्रो गणितको विद्यार्थी हुँ।) 1 2 3 4

19. My classmates usually get better grade than I do (मेरा सहपाठीहरूले प्रायः म भन्दा राम्रो ग्रेड पाउँछन्।) 1 2 3 4

20. What I learn in school is not important (मैले स्कूलमा जे सिक्छु त्यो महत्वपूर्ण हुँदैन।) 1 2 3 4

21. I usually understand my homework/assignments (म प्राय मेरो गृहकार्य/असाइनमेन्टहरू बुझ्छु।) 1 2 3 4

22. I usually do not get good grade in math because it is too hard (म गणितमा राम्रो नपाउँछु किनभने यो धेरै गाह्रो हो।) 1 2 3 4

23. It does not matter if I do well in school (मेरो स्कूलमा राम्रो गरे पनि फरक पर्दैन।) 1 2 3 4

24. Kids who get better grade than I do get more help from the teacher than I do (बच्चाहरू जो म भन्दा राम्रो ग्रेड प्राप्त गर्छन् तिनीहरूले मेरो भन्दा धेरै शिक्षकको मद्दत पाउँछन्।) 1 2 3 4

25. I am a good reading student (म राम्रो पढ्ने विद्यार्थी हुँ।) 1 2 3 4

26. It is not hard for me to get good grade in school (मलाई स्कूलमा राम्रो अंक प्राप्त गर्न गाह्रो छैन।) 1 2 3 4

27. I am smart (म स्मार्ट छु।) 1 2 3 4

28. I will quit school as soon as I can (म सक्दा यो छोटो छोटो होला।) 1 2 3 4

29. Teachers like kids even if they do not always make good grade (शिक्षकहरू मन पराउँछन् यदि उनीहरूले सबै राम्रो ग्रेडहरू हासिल नगरे पनि।) 1 2 3 4

30. When the teacher asks a question I usually know the answer even if the other kids don't (जब शिक्षकले कुनै प्रश्न सोध्छ, अन्य साथीहरूले नचाहे पनि म सामान्यतया उत्तर जान्छु।) 1 2 3 4

31. Circle the grade that is applicable to your current grade: तपाईंले एस.एच.एस. प्रयोग गरेको विषय गत ग्रेड मा टिक लगाउनुहोस्।  
 A  B  C  D  E

32. What grade in **social studies** did you get on your last report card?  A  B  C  D  E

33. What grade in **science** did you get on your last report card?  A  B  C  D  E

34. What grade in **practical exam** did you get on your last report card?  A  B  C  D  E

Thank you for filling in the questionnaire. If you have questions or comments, please feel free to ask one of the researchers present or you can contact them afterwards by sending an email to one of the addresses below.

Dr. Basanta Prasad Adhikari [Adhikari\\_bp@gmail.com](mailto:Adhikari_bp@gmail.com) Oxford college of Engineering and Management, Nepal Dr. Cha-Hsuan Liu [c.liu@uu.nl](mailto:c.liu@uu.nl) Utrecht University of Maaikje van Dalisen [m.i.vandalfisen@students.uu.nl](mailto:m.i.vandalfisen@students.uu.nl) Utrecht University (Master student) Jesse David Marinus [j.d.marinus1@students.uu.nl](mailto:j.d.marinus1@students.uu.nl) Utrecht University (Master student)

2. Psychological/Emotional Well-being मनोवैज्ञानिक / भावनात्मक तन्दुरुस्ती: I feel good and comfortable with myself in आफुमा राम्रो र आनन्द को महसूस गर्दछु।

Poor										Excellent
1	2	3	4	5	6	7	8	9	10	

3. Self-Care and Independent Functioning: सेल्फ केयर र स्वतन्त्र कार्य I can carry out daily tasks and make my own decisions in मेरो दैनिक कार्य आफ्नो निर्णयमा गर्न सक्छु।

Poor										Excellent
1	2	3	4	5	6	7	8	9	10	

4. Educational Functioning शैक्षिक कार्य I am able to carry out school tasks and exams in स्कूल को गृहकार्य र परिक्षा राम्रो सग दिन गर्न सक्छु।

Poor										Excellent
1	2	3	4	5	6	7	8	9	10	

5. Interpersonal Functioning (पारस्परिक कार्य): I am able to respond and relate well to family, friends, and within groups (म परिवार, साथीहरू, र समूहहरू बीच राम्रोसँग प्रतिक्रिया दिन सक्छु।)

Poor										Excellent
1	2	3	4	5	6	7	8	9	10	

6. Social-Emotional Support (सामाजिक भावनात्मक समर्थन): I have people around me that I can trust and who can offer me help and emotional support (मसँग भन्दा बढी परस्परिक व्यक्तिहरूलाई म विश्वास गर्न सक्छु र जसले मलाई भावनात्मक समर्थन र सहयोग गर्न सक्छन्।)

Poor										Excellent
1	2	3	4	5	6	7	8	9	10	

7. Community and Services Support (समुदाय र सेवाहरू समर्थन): I live in a pleasant and safe neighbourhood, where there is access to financial, informational and other resources (म एक राम्रो र सुरक्षित छिमेकमा बस्छु, जहाँ वित्तीय, जानकारी र अन्य स्रोतहरूमा मेरो पहुँच छ।)

Poor										Excellent
1	2	3	4	5	6	7	8	9	10	

8. Personal Fulfillment (व्यक्तिगत आनन्द/सन्तुष्टि): I am experiencing a sense of balance, dignity, solidarity; and enjoyment (मैले सन्तुष्टि, गरिबी, एकताको भाव र रमाइलो अनुभव गर्दछु।)

Poor										Excellent
1	2	3	4	5	6	7	8	9	10	

9. Spiritual Fulfillment (आध्यात्मिक पूर्णता): I am experiencing a strong faith or religiousness believe that transcendence beyond ordinary material life (म धर्मिकताको दृढ विश्वासको अनुभव गरिरहेको छु र साधारण भौतिक जीवन राम्रो छ भन्ने विश्वास गर्दछु।)

Poor										Excellent
1	2	3	4	5	6	7	8	9	10	

10. Global Perception of Quality of Life (feeling satisfied and happy with your life in general) बिस्त ग्लोबलरिय जीवनको जानकारी (तपाईंको जीवनमा सन्तुष्टि र खुशी छु।) Poor

Poor										Excellent
1	2	3	4	5	6	7	8	9	10	

**Part 4: Educational development**  
Please indicate how strongly you agree with the following statements.

Really disagree Kind of disagree Kind of agree Really agree

1. I work hard in school (म स्कूलमा कडा परिश्रम गर्छु।) 1 2 3 4

2. I could get the best grade in class if I tried enough (म पर्याप्त प्रयास गरे भने म कक्षा मा सबै भन्दा राम्रो ग्रेड प्राप्त गर्न सक्छु।)

## **Appendix 2 – Consent form parents**

### Parental Permission for Children Participation in Research

Title: The impact of the parental migration to the left behind children on their health and well-being and the educational development at Chitwan District, Nepal.

#### Introduction

The purpose of this form is to provide you as the parent of a prospective research study participant information that may affect your decision as to whether or not to let your child participate in this research study. The person performing the research will describe the study to you and answer all your questions. Read the information below and ask any questions you might have before deciding whether or not to give your permission for your child to take part in this research. If you decide to let your child be involved in this study, this form will be used to record your permission.

#### Purpose of the Study

If you agree, your child will be asked to participate in a research study about parental migration and their impact on the development of children's education, health and well-being. The purpose of this study is to examine the opinions and perceptions of both migrant and non-migrant households' children for the impact of their parental migration outside of Chitwan, District, Nepal.

#### What is my child going to be asked to do?

If you allow your child to participate in this study, they will be asked to complete the survey questionnaires based on their experiences and opinions. They will also be asked to participate in the focus group discussion including details about completing surveys, the focus group discussion. In the focus group, five girls will be participating. This study will take 30 minutes of time for participation, and there will be more than 250 participants in the survey study and 15 girls will be participating in the focus group discussion of other people in this study.

#### Note:

This is a research study which does not intend to provide a medical or therapeutic diagnosis or treatment. The intervention provided in the course of this study is not necessarily equivalent to the standard method of prevention, diagnosis, or treatment of a health condition. The

participants will be involved in audio recording including the following. The data given by your child will be recorded in an electronic device.

The risks involved in this study

There are no foreseeable risks to participating in this study. This study does not have any forceful risks during the participation. The risks are not greater than minimal risks.

The possible benefits of this study

The study has direct benefits of non-monetary compensation to your child for example careful attention of children during the research processes which cannot be categorized as a financial benefit. Your child will receive no direct benefit from participating in this study; however, it will be beneficial to the policy makers and the society to understand the migration issues and to formulate new migration policy.

Participation

Your child's participation in this study is voluntary. Your child may decline to participate or to withdraw from participation at any time. Withdrawal or refusing to participate will not affect their relationship with the University of .....in any way. You can agree to allow your child to be in the study now and change your mind later without any penalty.

What if a child does not want to participate?

In addition to your permission, your child must agree to participate in the study. If your child does not want to participate, they will not be included in the study and there will be no penalty. If your child initially agrees to be in the study, they can change their mind later without any penalty.

Will there be any compensation?

Neither you nor your child will receive any type of payment participating in this study but dignity of both will be maintained.

How will a child's privacy and confidentiality be protected if s/he participates in this research study?

Your child's privacy and the confidentiality of his/her data will be protected by reserving the right to control data by the university/college and make it invisible to the public during the

study. The name of the children will not be recorded, and the data will be deleted after analyzing. If it becomes necessary for the Institutional Review Board to review the study records, information that can be linked to your child will be protected to the extent permitted by law. Your child's research records will not be released without your consent unless required by law or a court order. The data resulting from your child's participation may be made available to other researchers in the future for research purposes not detailed within this consent form. In these cases, the data will contain no identifying information that could associate it with your child, or with your child's participation in any study.

Prior, during or after your participation you can contact the researcher Dr. Basanta Adhikari, Dr. Cha-Hsuan Liu .....at 00977986520699 or send an email to ..... for any questions or if you feel that you have been harmed. This study has been reviewed and approved by the University Institutional Review Board and the study number is .....

Whom to contact with questions concerning your rights as a research participant?

For questions about your rights or any dissatisfaction with any part of this study, you can contact, anonymously if you wish, the Institutional Review Board of Oxford College of Engineering and Management by phone at 00977-78-501078, or 00877 501281 or email at [nfo@oxfordcollege.edu.np](mailto:nfo@oxfordcollege.edu.np).

#### CONSENT

I have read this parental consent form and have been given the opportunity to ask questions. I give my permission for my child to participate in this study. I understand that, in order for my child to participate, they will need to be able to give their consent also. I understand that participation is voluntary, and I can withdraw my child at any time without penalty or loss of benefits. I should be informed of any significant new findings discovered during the course of this study that might influence my child's health, welfare, or willingness to continue participation in this study.

Parent/Guardian signature.....

Date: \_\_\_\_\_

### **Appendix 3: Assent form students**

#### **Information letter questionnaire for students**

Dear student,

On behalf of the Utrecht University in The Netherlands and the Oxford College of Engineering and Management Nepal, we are pleased to invite you to participate in a questionnaire about your wellbeing and educational development. This questionnaire will approximately 20 minutes. The purpose of the questionnaire is to gain insights into the effects of migration of the parents to work abroad on the wellbeing and educational development of the girls. This knowledge will be used to generate a master thesis for the University of Utrecht and can be referred to by institutions for policymaking and intervention making in the future.

The University of Utrecht, Netherlands and the Oxford College of Engineering and Management Nepal have created the questions in the questionnaire to gain a better understanding of the changes in life satisfaction and wellbeing as well as understanding what the possible effects of migration of the parent are on the educational experience and satisfaction of you. Even if your parents have not migrated to work outside of Chitwan, your contribution is still highly relevant to understand the possible effects of parental migration.

Your answers to the questionnaire are anonymized and protected. We will not know who has given which answers. After the filled in questionnaires have been collected we will digitize them and saved them on a protected drive, where only the researchers in the project are able to see them. No one will know which answers you have given.

The participation is voluntary, meaning that you do not have to participate and you are able to withdraw your participation whenever you want. There are no consequences when you decide not to participate or when you withdraw.

Thank you for your participation.

Please contact the researchers if you have any questions.

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M. van Daltsen BSc    m.t.l.vandaltsen@students.uu.nl

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Independent contact person:

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## Consent form questionnaire for students

Our names are Basanta, Jesse, and Mickey. We are trying to learn more about the difference between girls whose parents still live at home and girls whose parents live outside of Chitwan.

If you agree, you will be asked to fill in a list with questions about yourself. The questions will ask you how satisfied you are with your day-to-day life and what you think of school.

You may be helping us understand how girls feel when their parents work outside of Chitwan and how this changes their lives.

If you agree to participate, you should know that your teachers, family members, and classmates won't know what you have answered. You should also know that if you decide to participate or if you decide to say "no," your choice will not affect how much people like you.

There are no right or wrong answers that you can give.

The answers you have given will be protected and anonymized. Meaning that your answers will not be shared with people outside of the project and they will not know that you are the one who has given the answers.

We have also asked your parents to give their permission for you to be in this study, but even if your parents say "yes," you can still say "no" and decide not to be in the study

If you don't want to be in our study, you don't have to be in it. Remember, being in the study is up to you and no one will be upset if you don't want to be in the study, or if you decide to stop after we begin, that's okay, too. Also, remember that no one else, not even your parents, will know what you have answered.

You can ask any questions that you have about the study. If you have a question later that you did not think of now, you can contact us by phone or email

Basanta: +9779865206991 or [adhikaribasantaprasad@gmail.com](mailto:adhikaribasantaprasad@gmail.com)

Jesse: [j.d.marinus2@students.uu.nl](mailto:j.d.marinus2@students.uu.nl)

Would you like to answer the questions? Draw a circle around your answer:

**YES**

**NO**

Your signature: \_\_\_\_\_

Date: \_\_\_\_\_