



# “How Do You See Your Life Now?” A Photo-Elicitation Study Focused on Depression and Social Skills in Adolescence

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**Abstract** Previous studies have reported associations between low levels of social skills and the prevalence of depressive symptoms in adolescents. Although substantial quantitative research has been carried out on this association, there have been few qualitative investigations into this topic. This study explores the association of depression symptoms and social skills repertoires in adolescence qualitatively, using photo-elicitation. Eight Brazilian adolescents were divided into two groups considering the presence or absence of depression symptoms, gender and socio-economic conditions. Participants were asked to take six pictures regarding a specific question. Individual interviews about their images were conducted. Visual and textual data were analysed using Thematic Analysis and four guidance questions. Socially skilled behaviours were associated with adolescents' perceived support and considered a protective factor for depression during stressful life events. Relationships with parents and new school colleagues were the primary sources of social skills challenges. Parents' lack of social skills seemed to be associated with adolescents' low social skills repertoires. Hobbies were found to facilitate adolescents' engagement in social interactions. The study extends our knowledge of how adolescents experience the association of depression and social skills in their daily lives, contributing to inform adolescents' and parents' social skills training focused on decreasing adolescents' depression symptoms. Limitations and implications for practice and suggestions for future research are discussed.

**Keywords** Adolescent · Depression · Social skills · Photography · Photo-elicitation · Pictures

## Introduction

The increasing cases of adolescents experiencing depression have demanded special attention from professionals and researchers worldwide (Racine et al., 2021). Depression is among the leading causes of illness and disability among adolescents (The World Health Organization, 2019), impairing physical and mental health, cognitive functioning, relationships with peers, parents and academic performance (Clayborne et al., 2019). The disorder is a major risk factor for suicide (Gili et al., 2019), health-threatening behaviours (e.g. substance abuse, self-harm, risky sexual behaviour, Pozuelo et al., 2022) and negative effects on adulthood (e.g. limited social and economic opportunities, recurrence of depressive episodes over time; The World Health Organization, 2019, Benjet et al., 2020). Considering chronicity, severity and long-term negative consequences of depression's interference in well-being, investigating protective factors to depression becomes urgent to assist health professionals, parents, and teachers in establishing enabling environments to promote adolescents' and adults' mental health (Yao & Enright, 2021).

Adolescence is a critical period for the development of knowledge and skills that are needed to effectively manage emotions and relationships during adolescence and adulthood (Beirão et al., 2020). Previous studies have pointed to social skills as a protective factor to adolescent depression, given correlations between depressive symptoms and low levels of social skills in adolescence (Campos, 2010; Campos et al., 2018; Nilsen et al., 2013; Singh et al., 2019;

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Yao & Enright, 2021). A directional cause between social skills and depression symptoms is still not clarified. Several scholars state that a good repertoire of social skills can work as a protective factor for depression because it can contribute to more positive relationships (Campos et al., 2014; Khodaei et al., 2021; Romppanen et al., 2021), more access to social support from others and thus, less vulnerability to psychological distress and emotional disorders (Segrin, 1996, 2000; Segrin & Flora, 2000; Segrin et al., 2015; Moeller & Seehuus, 2019; Romppanen et al., 2021).

Despite many quantitative studies addressing the association between depression symptoms and social skills in adolescence, there has been less work undertaken about adolescents' experiences and real-life examples of how these variables' relationship looks like in the context of their lives. Looking qualitatively into this subject, it is important to generate contextual data and deeper insights about how social skills may work as a protective factor to depression in adolescents' daily lives. Generating these data can be particularly useful to mental health practitioners and scholars working with this population, mainly the ones conducting and developing depression interventions based on social skills training. In this sense, the aim of this study is to explore how social skills repertoire interferes in adolescents' lives and its relationship with the presence or absence of depression symptoms.

Depression is usually marked by symptoms such as reduced interest in activities, social isolation, fatigue, hopelessness, feelings of guilt, negative thoughts and suicidal ideation (DSMV, APA, 2013). Low levels of social skills are commonly expressed by non-effective behaviours in social relationships (such as not initiating or responding to conversations, having difficulties in regulating and expressing thoughts, feelings or needs). Considering that these features would be expected in participants' behaviours, the main challenge of this research was to develop a methodological design (1) valuing adolescents' emotional safety, (2) promoting their engagement with the research and (3) creating a welcoming environment to facilitate adolescents' dialogues with the researcher.

To address these demands, photo-elicitation was chosen as a qualitative methodology to support the study, given its documented contributions in research involving sensitive topics, intense emotional experiences and less expressive populations (Creighton et al., 2013; Drew et al., 2010; Padgett et al., 2013).

Photo-elicitation consists of using pictures as a supportive tool to conduct interviews (Collier, 1967), which means that the researcher asks participants to answer questions related to the chosen photographs. It is expected that the use of pictures during the interview (1) facilitates the elicitation of participant's thoughts and speeches, (2) makes the interview environment less intimidating by

changing the direction of interview questions and eye-gazing changes from the individuals to the pictures.

The photographs that are used in the interviews can be taken by participants (i.e. participant-generated), chosen from personal files or taken by the researchers. Though these three settings are possible, photo-elicitation designs using participant-generated pictures are valued for their potential to place participants as active subjects in the production of knowledge. This is done by giving them autonomy to choose what they want to picture and share, considering their perspectives as important for understanding the study phenomenon (Drew et al., 2010).

A photo-elicitation design with participant-generated pictures was chosen for this study due to the reasons listed above, as well as because of its potential to enrich the data, to facilitate the verbalization of experiences that can be difficult to conceptualize and express (Drew et al., 2010) and to elicit information that can either add or differ from verbal-only traditional methods such as questionnaires or interviewing (Drew & Guillemin, 2014; Glaw et al., 2017).

## Methods

A multi-method approach was adopted. Quantitative data from psychological assessments were used to measure participants' depression symptoms and their social skill repertoires, in order to form comparison groups. Qualitative methods were used to elicit and analyse data related to how social skills interfere in adolescents' lives depending on the presence or absence of depression symptoms.

## Participants and Recruitment

Brazilian adolescents were recruited in one public and one private school in a small city in the state of São Paulo, Brazil. To participate in the recruitment (i.e. inclusion criteria), adolescents should be high school students, aged 14 to 17 years ( $M = 15, 31$ ;  $D.P. = 1, 1$ ), with no previous diagnoses of severe learning disorders, schizophrenia, autism spectrum disorder, accentuated verbalization difficulties and developmental disorders in general.

In the recruitment phase, adolescents were invited to fulfil a (1) General Information Sheet (Containing adolescents' sex, age, the presence or absence of previous diagnoses of mental health disorder and presence or absence of currently undergoing psychological treatments), the (2) Brazil Economic Criterion Inventory (ABEP, used to measure adolescents' social-economic conditions), (3) Children's Depression Inventory (CDI, used to measure adolescents depression symptoms) and (4) IHSA-Del-Prete Adolescents Social Skills Inventory (used to measure adolescents' social skills repertoires). Adolescents who

were absent on the days of application of assessment instruments or left more than 80% of data blank in any of the instruments were excluded from the research (i.e. exclusion criteria). Recruitment was considered complete when the results of the assessment instruments were heterogeneous enough to form subgroups of participants with characteristics that could be matched.

Using stratified sampling, a clinical group was formed by four adolescents who showed similar depression symptoms at the Children's Depression Inventory (CDI) and low levels of social at the IHSA-Del-Prette Adolescents Social Skills Inventory (the equivalent of the Matson Evaluation of Social Skills with Youngsters Scale for the Brazilian context). A non-clinical group was formed by four adolescents with no indicators of depression symptoms and good repertoires of social skills at the IHSA-Del-Prette. Each group (see Table 1) was formed by two boys and two girls, two with low socio-economic conditions and two with middle socio-economic conditions.

Ethics approval (No. 3.043.331, 28/11/2018) was obtained from The Federal University of São Carlos Human Research Ethics Committee, attending the ethical standards of the Brazilian National Health Council (Resolution 466/2012). Consent was asked at the recruitment process and after each participants' interview, providing them with a form asking if they and their parents agreed or not that their data were anonymously shared in scientific presentations and publications.

The sample size of the study was based on the resources available to conduct the research. Conducting qualitative research with adolescents involves considerable methodological challenges (e.g. the imbalance in the researcher–adolescent relationship, possible emotional reactions inherent to the research, the adolescents' lack of involvement or difficulties in expressing emotions verbally during the research, Sibeoni et al., 2017) that require different types of resources. The emotional vulnerability of

participants, for example, requires the availability of free counselling services at any time of the study. The generation of visual data requires extra careful decisions during to technical and ethical involved before, during and after the image is produced by the adolescents (Guillemin & Drew, 2014), such as issues related to confidentiality, privacy and data analysis of visual data remaining faithful to participants' intentions (Drew & Guillemin, 2014). The resources that were required and developed to solve these questions are described in detail in Trombeta & Cox (2021). Therefore, even though a larger sample was desired, addressing efficiently all of these aspects of the research was slow, expensive and labour intensive, which limited the possibility of expanding the sample.

## Procedure

Data collection was conducted in participants' schools in face-to-face meetings. The researcher and the eight Brazilian adolescents recruited for the study met (1) at the recruitment process, in which participants filled the assessment instruments collectively, (2) at the moment of giving participants instructions about the photo-elicitation task, (3) at the individual interviews. The whole process was conducted by the same researcher, which was, at the time of the study, a master's degree student with previous experience in qualitative research and photography.

Instructions about taking the pictures were given using a 2-min animated video (available at Online Resource 1 and Script at Online Resource 2) played twice. In this video participants were asked (1) to take, in two weeks, six pictures related to the question: "How do you see your life now?" and (2) send the pictures to a specific WhatsApp number. The question was purposefully elaborated to be a broad question. It aimed to give adolescents freedom to choose what they would like to share about their recent life experiences, supposing that if social skills and depression

**Table 1** Participant's characteristics

Group	Respondent	Gender	Age	Socio–economic condition	CDI score	HS frequency	HS difficulty
Clinical	GL	Boy	16	Low income	23	Lower middle	High
	MT	Boy	15	Middle income	23	Low average	Middle
	NL	Girl	15	Middle income	25	Low average	High
	YR	Girl	15	Low income	24	Lower middle	High
Non–clinical	HR	Boy	14	Middle income	7	Elaborated	Low
	PL	Boy	15	Middle income	15	Good	Middle
	FR	Girl	15	Low income	11	Good	Middle
	ML	Girl	15	Low income	10	Good	High

HS Frequency and HS Difficulty measured using IHSA–Del–Prette Social Skill Inventory for Adolescents

CDI children's depression inventory, HS Frequency social skills frequency, HS Difficulty social skills difficulty

symptoms were having significant interference in their lives, these themes would emerge naturally in their interviews.

The individual interviews took place in school spaces assigned by the principals: a private space at a library and a small classroom. The meetings were previously scheduled with the adolescents and their schools. The adolescents received reminders about their scheduled appointments on WhatsApp one week and one day before the meeting. For each interview, the researcher carried an audio recorder, the interview protocol (available at Online Resource 3) and the participant's images printed in photographic paper.

The interviews were semi-structured, lasting from 50 to 120 min. A fixed set of questions inspired from the Showed Method (Wang et al., 2004) (e.g. What do you see in this picture? What does this picture mean to you? How is this picture related to your life? Why did you choose this picture?) was asked for each picture, interlaced with flexible questions going deeper in topics they have mentioned.

Adaptions in the standard Showed Method's questions were made after piloting the interview with other participants. During this pilot, the author noticed that when some questions (e.g. "Why does this problem or situation exist?" and "What can we do about this problem or situation?") were asked to adolescents experiencing depression, they could elicit feelings of guilt, negative thoughts and hopelessness. Given that their potential to cause more emotional harm than benefits, these questions were excluded from the interview protocol and adapted to other questions (e.g. Why did you choose this picture?).

Data collection was considered complete when the interviews of the eight Brazilian adolescents were finished. Considering the interview could elicit difficult emotions, participants were informed that they could have access to free sessions of counselling at The Federal University of São Carlos.

## Data Analysis

Data analysis was conducted in NVIVO 12, in two phases: (1) Thematic Analysis (Clark & Braun, 2013) of interviews and (2) Integrating interviews and pictures data using four questions to guide the analysis (What is in the pictures that reinforce interviews data? What is in the pictures that contradict interviews data? What is in the pictures that is not in the interviews? What is in the interviews that is not in the pictures?).

Exploring associations between social skills and depression symptoms in adolescents' lives through this data analysis method was possible due to the use of a theoretical coding approach. In this approach, codes related to depression symptoms and social skills behaviours were created accordingly to the designation from their specific

literature on cognitive-behavioural psychology, paying special attention to excerpts suggesting behaviours mentioned at Children's Depression Inventory and the IHSA-Del-Prette Adolescents Social Skills Inventory. A step-by-step of this data analysis methodology is available at Trombeta & Cox (2021).

## Results

Three themes, present in both interviews and pictures data, were identified as relevant for how social skills repertoires can interfere in adolescents' daily lives: Life changes, Parents Relationships and Coping Resources (Conceptual maps of themes available in Online Resource 4).

### Life Changes

The Life Changes theme is about moments where something has changed in adolescents' lives, leading to new challenges and stressful situations. Most changes in adolescents' lives were related to family health problems, financial issues and school demands.

Though both groups mentioned periods of suffering, adolescents with no depression condition highlighted their behaviours while facing the changes, and the different ways they felt that they were receiving social support from friends and family. Most of these reports included socially skilled behaviours, such as expressing feelings, establishing limits and showing affection.

By contrast, adolescents with depression symptoms highlighted feeling uncomfortable or sad with specific situations. In their stories, they attached these feelings to the way others were threatening them and to the sensation that there was nothing they could do to make the situation better. Most of this group narratives included a low repertoire of social skills coming from adolescents and/or others around them, indicated by adolescents references to behaviours related to do not express feelings and opinions, being disrespectful to someone, blackmailing, do not establishing limits, do not showing affection or empathy and avoiding social situations. Lacking social skills, and/or being around people who lack it, seemed to make periods of changes more stressful, longer and more difficult to face, collaborating as a risk factor for depression symptoms.

Regarding changes caused by family health problems, discourses from the clinical group were not about suffering because of the health condition of family members itself. The discourses were focused on how this condition lead to changes in important relationships in their lives and how these changes impacted them, feeling hope but missing perspectives about how they could behave to change this situation (See Fig. 1).

Changes related to financial issues (e.g. moving to a public school, moving to a dangerous neighbourhood, leaving courses and hobbies or missing school days) complicated adolescents' access to things that were important for them. These situations pushed them to face new contexts in which having or not effective social skills seemed to influence directly on how they adapt to the new environment. In this context, stories from adolescents experiencing depression were focused on people, mainly in the social support they feel to have lost. When complaining about changing schools or leaving courses and hobbies, the main sensitive issue was that the situation decreased their opportunities to be in touch with people who used to support them, increasing their time alone and their feelings that their parents did not care enough about them.

"This (the computer) is my favourite hobby, I guess... because usually... yeah, now the computer is broken and I stay in the living room. Before that I used to arrive home and keep playing on it until midnight or 1 a.m., talking to the boys. It was the moment I unburdened and de-stressed, it saved me from a lot of stuff, sadness and feelings like that...- Now I get home and wait for my brothers to arrive, I talk to them, and then I leave, watch some Tv Show, go to my room, and then stay there alone, listening to music."—Quotation from GL, a boy from the clinical group.

"My father has no money for the bus ticket for me to go to school and he doesn't give a shit, you know? He says, "Go on foot" but it's very hard to come here on foot, I'm afraid to walk in the street alone and it's morning and it's cold,(...) I did the math and I needed 108 reais to go to school and my course every day, but my dad doesn't care, you know? He doesn't care if I'm fine, if I ate, he doesn't care about anything,

what matters to him is that when he comes home there is food for him, if there isn't, then he starts to say something"—Quotation from YR, a girl from the clinical group.

Changing schools also highlighted social skill difficulties from this group, such as difficulties in initiating or keeping a conversation with new school colleagues, as well as not feeling able to open up, negotiate and/or establishing limits to them. Reports of these behaviours were accompanied by adolescents' concerns about not being welcome or about being misunderstood, judged or become the centre of attention. Descriptions of moments in which these scenarios really happened were attached with feelings of self-guilt, lack of motivation, tiredness and reports of decreased school performance (See Fig. 2), suggesting that having difficulties with social skills required to make new friends may be an important risk factor to depression symptoms.

Adolescents with no depression symptoms also described financial problems as challenging. However, they highlighted the ways they have acted to overcome the situation and supportive actions coming from the people around them. For example, when a girl told about how she experienced moving to a dangerous neighbourhood, she mentioned she felt afraid of being alone at home, but her father built a higher wall to make the house safer. She also mentioned that she met other girls at the same street and found ways to negotiate with her parents when she could hang out with them. A boy reported a similar structure of events. When telling about changing schools, he mentioned that his parents offered to help him, he also asked old friends to present him to his new school's colleagues to make new friends.



"I think my life needs a little change (...)  
After my grandfather passed away there was no one else to ask for help because my grandpa used to scold my father when he did these things (being aggressive, calling names), then after he passed away things got worse. (...)  
My father's family got separated after my grandfather's death. I wanted us to come together again, because with my grandpa here we were very close, but after he passed away, everybody went on a different path. I hope things get better, you know?  
I hope everything gets better.  
- What do you think it takes to get better?  
I think it is people. At my home, it would be my dad. "

**Fig. 1** "Waiting". Picture and quotation from NL (girl from the clinical group). The word inside of it is "Mudança" a Portuguese word that means "Change" in English



"This picture is life's problems coming to our stability, coming to where we are... It's related to the challenges I want to face, studying computer science, being accepted into a college like USP and being able to stand out. Until it arrives I have to prepare myself to be able to survive the storm...The storm is the problems, for example, I do not like to get too much in the spotlight, where my school colleagues keep looking at me and judging me. People mock me sometimes, usually when I'm standing out at something, like doing a great presentation that is mandatory, or when I drop water on my notebook, people will keep looking at me and saying "you screwed up"(...) I usually don't talk to anyone and people throw paradigms of me that I'm that X9, the one who is quiet and if see someone doing something wrong will tell the teacher, but I'm not like this. I understand why they think that...when I was in the 9th grade I wanted to study hard enough to get into a technical program, which I didn't make it, but to be able to do it I wanted to create a good study environment and every time I saw someone doing wrong I blackmailed them saying I would tell the teacher, but I never really told."

**Fig. 2** "Storm", Picture and quotation from ML, a boy from the clinical group

### Parents Relationships

"Parents' relationships" theme is about adolescents' feelings and perceptions about their parents. Descriptions of parents' behaviours related to social skills were highly associated with adolescents' perceptions of being loved, cared for and supported (i.e. perceived support).

Adolescents with no depression condition reported having some conflicts with parents but also experiencing moments in which they felt supported, mentioning caring moments and a lot of activities they do together. These moments were linked with good feelings, such as happiness, joy, appreciation for having a company and learning new things.

"We sometimes argue because both of us are stressed, right? but it's good, normal... I love my mom and that's why I sent her picture, because she helps me, she always takes care of me, so she's very important for me."—Quotation from FR, a girl from the non-clinical group.

"When my dad is fine, he's a super dad. He gives me everything, he does everything I want. About talking, he doesn't talk much, but whenever I need help in some exercise and I want to say something, he listens to me, but, when he's drunk everything changes and it's really annoying".—Quotation from PL, a boy from the non-clinical group.

In contrast, girls from the clinical group did not report doing any activity with their parents and boys only mentioned watching TV shows or eating quietly, suggesting a lack of family interaction and lack of pleasurable times spent together. This group's descriptions about family time highlighted situations in which they felt they were not understood or their feelings were not considered. They also mentioned they wished to be more supported by their parents or that their relationships were different. However, they argued that they do not know what to do to make it better. Boys from this group reported offering help and accepting invitations as a way to be closer to their mothers. Girls mentioned tentative approaches to become closer by

telling their parents important things about their lives or expressing their feelings. Despite their efforts, both genders reported noticing their parents were rude, indifferent or that nothing has changed over time, meaning that when they try to come closer, there were no rewarding feelings or only negative consequences. This aspect suggests that their parents behaviours may be contribute for the adolescents low social skills repertoire, given that when they tried to engage in certain skills, their parents did not reforce their behaviours.

I tried to tell him when I was sad, I said “Dad, something happened at the school today”-once I had an argument with my friend at school and I wanted to tell him-then he said “you just won’t get home with a purple eye” (...) His focus is “study and don’t fight with anyone, that’s it, it doesn’t matter if you’re ok, if you’re bad, you just have to study...”-Quotation from YR, a girl from the clinical group.

If I tell her things, she tells my dad, then it kind of bad (...) She stays on her cell phone and then goes to see if I did things, she always criticizes me, she always says that something is wrong (...) when my mother criticizes me, when she says these things, I’m like “I’m not good at anything” (...) I think sometimes she doesn’t know what she says, you know? She talks things out a lot, she doesn’t filter too much and then she doesn’t know how much it hurts me, but it’s already normal, I’m used to it.-Quotation from NL, a girl from the clinical group.

A bidirectional problem was noticed. On the one hand, adolescents experiencing depression seemed to have difficulties with some social skills related to expressing themselves and making themselves understood. On the other hand, their descriptions about their parents’ behaviours also raised another three hypotheses: 1. Parents of adolescents experiencing depression symptoms may also have difficulties with social skills repertoires necessary to deal with their children healthly. 2. Adolescents with depression symptoms may perceive less social supportive behaviours from their parents than those with no depression symptoms. 3. Both scenarios may be happening simultaneously.

### Coping Resources

This theme is about the discourses around coping strategies, defined as actions taken automatically or consciously to deal with stressful or threatening situations, aiming to tolerate or reduce its effects (APA Dictionary, 2013). Adolescents’ coping strategies related to social skills repertoires included looking for social support and engaging in hobbies.

Regarding looking for social support, both groups highlighted seeking it from friends, describing them as people who were always available to talk about everything, to provide practical help or emotional support.

“My sister, my father...my friend is the one who helps with everything in my life. He is the one who helped me sign up for this course because my parents don’t help me with things, they don’t support me, you know? He was the one who helped me sign up because I asked my mother and she said she didn’t have time, but she doesn’t even work, so...then, I had to quit the course because I didn’t have bus tickets to come to school anymore, my friend paid the ticket that I used to come today”-Quotation from YR, a girl from the clinical group.

Frequent comparisons were identified between friends’ and parents’ behaviours. In these comparisons, adolescents from both groups reported that they were more able to negotiate, asking and accepting help, expressing feelings and doing and accepting invitations in front of friends rather than parents. These reports suggest that it is easier for them to engage in more effective social skilled behaviours with friends than with their closest family.

“We’ve been together since the first year in my old school. We go everywhere together, we are like brothers (...) They have been with me forever, they are the people that most help me, sometimes even more than my own family. I open up more to them than to my mother or my father.”-Quotation from GL, a boy from the clinical group.

Besides social support, a significant part of the adolescents’ stories was related to activities they really enjoy doing, which are considered here as hobbies. An interesting pattern in clinical group stories was that art-based hobbies and outdoor activities were attached to interactions with people or to the aim of “relax, de-stress or become calmer”.

Adolescents stories highlighted that these hobbies helped them talking about their feelings, making new friends and having subjects to start conversations with colleagues. These data suggest that adolescents with depression may engage in different hobbies as a way to facilitate social interactions, using it as a reason to be around people they like and also as a way to engage in social skills that may be difficult for them without a context to support it (See Fig. 3).

“I really enjoy drawing, uh... sometimes I draw the universe because I think it is a really calm place, there isn’t any noise or anything.... (Drawing) is also a moment of unity that I have with my middle



"The friend I was talking downstairs, you know? He was playing guitar and I didn't even know him, but I got close to him because of the guitar, then we became friends. Now he plays, I play, we keep playing and people come closer, more people come to listen to us and then everyone sings, everybody laughs. I think it's the guitar, the music, that unites people."

**Fig. 3** "Expression", Picture and quotation from YR, a girl from the clinical group

brother, because sometimes he locks himself into his bedroom, he keeps drawing or in his cellphone and then I almost don't speak to him, either with the younger one, unless I am helping them with something. So drawing we take the course together and we can help each other."—Interview excerpt regarding a picture named "Getting off the chest"—Quotation from GL, a boy from the clinical group.

## Discussion

This photo-elicitation study provides insights into how adolescents experience the association of depression symptoms and social skills repertoire in their daily lives. Three themes emerged from the data: Life changes, Parents Relationships and Coping Resources.

According to findings of this study, having an effective repertoire of social skills seemed to be particularly relevant as a protective factor to depression mainly when adolescents were facing stressful situations related to adapting to a new environment (changing schools or neighbourhoods, dealing with family's health problems or financial issues). As illustrated in the Life Changes Theme, having an elaborated social skills repertoire during these stressful situations seemed to have helped adolescents from the non-clinical group establishing more positive relationships and experiencing less negative feelings, contributing for them to perceive the new environment as stressful for a shorter period and to adapt faster to their new life condition.

These findings corroborate with Segrin (2017) statements that social skills deficits are a risk factor for psychosocial problems especially when people are confronted with stressful events. In addition, these data also fit the social skills deficit vulnerability model (Segrin, 1996, 2000; Segrin & Flora, 2000; Segrin et al., 2015). This model affirms that people with a good repertoire of social skills are better at having access to social support, which is why they keep a certain quality of life even when they face challenging events. By contrast, people with a low level of social skills usually have fewer opportunities to acquire

social support, being more vulnerable to the ill effects of stress and more likely to experience psychological disorders (Segrin et al., 2015), "as social support acts as a buffer against stressful events" (Yao & Enright, 2021).

To date, the social skills deficit vulnerability model has been empirically tested only with young adults and adults, but findings from this research provide us with examples that suggest that this model may also apply to adolescents. For example, although starting a conversation with a new school colleague was a difficult situation for both groups, having a good social skills repertoire (non-clinical group) resulted in asking acquaintances to present their friends, increasing participants' chances of having people being friendly to them and generating positive feelings towards the environment. By contrast, a lower repertoire of social skills (clinical group) resulted in trying to build a better classroom environment by blackmailing school colleagues, a behaviour that, though performed with good intentions, had as outcome people being rude, generating negative feelings and contributing towards adolescents to spend more time alone, increasing their vulnerability to depression symptoms. These events are consistent with the social skills → social support → lower psychological distress pathway proposed by the social skills deficit vulnerability model, indicating that social skills may work as a protective factor for adolescent depression by the same mechanisms that this pathway applies to adult depression.

Another relevant finding that emerged is that different sources of support seem to have different effects related to depression symptoms (Ren et al., 2018). In this study, even though relationships with friends were associated with high perceived support from both groups, parents' relationships were noticed as supportive only for the adolescents in non-clinical condition, meaning that adolescents with depression symptoms perceived their parents' behaviours more negatively and less supportive compared to the non-clinical group. Adolescence itself is usually marked by heightened tension between parents and teens and increased tentative of independence; however, parents play a critical role in supporting their children through the challenges of puberty



and early adulthood. According to the current evidence, the perception of parental support is a central issue to adolescents' well-being (Chentsova Dutton et al., 2020). This is true especially in the context of youth depression, in which only parental support has shown protective effects to depressive symptoms (Auerbach et al., 2011) and support from parents and family was found to be most consistently related to a youth's protection from depression, more than any other sources (Gariépy et al., 2016).

Besides taking into account adolescents' descriptions of their parents' social skills as a question of perception (that may be suffering influence from the depression condition), it is important to consider that parents supportive and social skilled behaviours from each group may truly differ, with parents from the non-clinical group presenting more social skills compared to the clinical one. This perspective can indicate significant effects of parents' behaviours in adolescents' mental health and their social skills repertoire, meaning that adolescents with depressive symptoms may be more vulnerable to a lower repertoire of social skills and depression disorders if their parents also lack an effective repertoire of social skills. Considering that parents play a crucial role in children's acquisition of habits, skills and behaviours, this hypothesis is consistent with the current literature that indicates that parenting styles have a direct influence on social skills (Salavera et al., 2022), positive parent-adolescent communication is negatively related to adolescent depressive symptoms (Zhang et al., 2021), and adolescents with higher-quality relationships with their parents report higher levels of well-being (Luijten et al., 2021). The interaction of these variables reminds us that a central issue of adolescents' emotional responses and behavioural resources is that they are not isolated events, but rather are a part of a complex context in which a variety of variables play different roles in shaping adolescent functioning (Beirão et al., 2020).

Adolescent coping strategies related to social skills were similar to those mentioned by studies focused on coping in adolescence (Hutchinson et al., 2006; Plancherel & Bolognini, 1995), including looking for social support and engaging in hobbies. The clinical group reported engaging in more hobbies than the non-clinical one, which was a contradictory finding considering that depression symptoms are usually associated with social isolation, fatigue and a reduced interest in activities (DSM 5, APA, 2013). One hypothesis that can explain this finding is that adolescents from the clinical group were not experiencing severe depression, and the engagement in hobbies for this group was related to seeking and facilitating social connections. The hypothesis that the engagement in hobbies facilitated this group expression of social skilled behaviours is consistent with Steinberg and Simon's (2019) study, in which girls' engagement in hobbies was

associated with less conflict and criticism and higher levels of prosocial behaviour and interpersonal competence with peers in social-economically disadvantaged contexts.

Though using photo-elicitation was time-consuming and required the researcher to think carefully about technical and ethical questions findings related to adolescents, engaging in hobbies as a way to facilitate social interactions reinforced the benefits of using photo-elicitation as a method to facilitate communication with adolescents experiencing depression.

### Implications for Practice

The findings of this study have several implications for practitioners working with adolescents. First, it seems particularly relevant that adolescents' social skills training programs are focused on expanding adolescents' behaviour repertoire to deal with stressful situations related to adapting to a new environment (e.g. changing schools or neighbourhood, adapting to new routines, new demands and different relationships dynamics). In these contexts, there is a definite need of training adolescents' interpersonal social skills, mainly the ones related to establish new social connections (e.g. initiating or keeping a conversation with new people, assertiveness in expressing feelings, negotiating conflicts and establishing limits). Considering that social isolation is usually a core component of the perceived experience of depression, purposefully addressing the need for social connectedness in adolescents by focusing on interventions and activities that offer alternative social experiences is crucial to prevent and improve symptoms (Viduani et al., 2021). The increase of behaviour variability through social skills training can provide adolescents with more access to social support, which can reduce social isolation and increase their available resources to face stressful situations, preventing and reducing depression symptoms. An evidence-based program that can be used for this purpose is the Interpersonal Psychotherapy-Adolescent Skills Training (IPT-AST; Young & Mufson, 2003). To inform the development of individualized interventions, it is also recommended that clinical practitioners and researchers rely on approaches focused on improving interpersonal relationships (e.g., interpersonal psychotherapy, as suggested by Viduani et al., 2021) and social competence and social skills theoretical and practical guidelines (such as Del Prette & Del Prette, 2021).

Perceived parental support is another variable that is very important for the psychological well-being of adolescents across several cultural contexts (Chentsova Dutton et al., 2020). In this study, socially skilled behaviours were linked to feelings of being loved, cared and supported (i.e. perceived support). Not only adolescents' social skills were

relevant for perceived support, but socially skilled behaviours from parents were highlighted as a key aspect of adolescents' feelings and their own social skill repertoires. An important practical implication of this finding is that professionals aiming to improve adolescents' skills and reduce depressive symptoms must consider the implementation of social skills training programs with parents. Improving parents' social skills can enrich their behaviour repertoire, enhancing parents' supportive behaviours, the quality of parent-adolescent relationship and the variety of skills that parents are able to teach their children in order to support their well-being (Bolsoni-Silva & Fogaça, 2018; Comodo et al., 2017). See Bolsoni-Silva and Fogaça (2018) for an example of an experimental program of adult social skills training with significant effects in children' social skills and emotional responses.

Seeking support from friends and participating in hobbies seemed to promote adolescents' socially skilled behaviours. Engaging in hobbies was underlined as contextual support to facilitate interactions, implying that hobbies may be an interesting activity to be further explored as a possible resource for social skills development. In this research, adolescents with depression symptoms engaged especially in arts-based hobbies and outdoor activities. This information can be used as a start point to develop targeted interventions aimed at developing social skills through engagement in hobbies. However, future research is recommended to specify which types of hobbies can be more or less beneficial to promote social skills and prevent depressive symptoms in adolescence.

### Limitations and Suggestions for Future Research

Despite contributing to clarifying how adolescents experience the association of depression symptoms and social skills repertoires, this study must be interpreted in the context of some limitations. The availability of resources restricted the study sample, so its qualitative findings is limited to a small number of respondents who took part in the study. Participants were adolescents living in a specific city in the state of São Paulo, so replicating this study in a different place, with a larger sample, could be useful to test its generalization. Investigating the generalization of the findings through quantitative or mixed-methods research could also be helpful to inform clinical practices and the development of adolescents' and parents' social skills training focused on decreasing adolescents' depression symptoms. Studies aiming to clarify relationships between social skills and adolescents' perceived support could also add relevant data to the literature.

### Conclusions

This study is among the first to examine the association of social skills and depressive symptoms in adolescence qualitatively. It contributes to the literature by adding specificity on aspects of adolescents' lives in which social skills can be particularly relevant in preventing adolescents' depression. Through the analysis of textual and participant-generated visual data from photo-elicitation, four new findings emerged: (1) socially skilled behaviours were associated with adolescents' perceived support and considered a protective factor for depression during stressful life events, (2) relationships with parents and new school colleagues were the primary sources of social skills challenges for adolescents, (3) parents' lack of social skills seemed to be associated with adolescents' low social skills repertoires, (4) hobbies based on arts and outdoor activities were found to facilitate adolescents' engagement in social interactions. Taken together, these findings suggest that understanding the relationship of adolescents depression involves looking at the complex nuances of their physical and social environment, taking into account their current life situation in terms of different types of vulnerabilities (e.g. financial needs, school situation, health problems) and access to resources (e.g. family and peer support, coping strategies). Implications for practice highlighted that social skills training aiming to prevent adolescents' depression may focus on behaviours required in the process of adapting to a new environment, and training parents' social skills and encouraging adolescents' involvement in hobbies involving social relationships may also be relevant for improving adolescents' social skills and preventing depression.

Although more research is needed to clarify the replicability of these findings, this study was an important initial step into looking at depression and social skills through the lens of adolescents' perspectives, generating innovative insights to be further investigated in future research and practice.

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**Data Availability** The dataset generated during the current study is not publicly available as it contains proprietary information that the authors acquired through a license. Information on how to obtain it is available from the corresponding author on reasonable request.

**Materials Availability** The materials that were used to perform this study are available at the article's supplementary material files. More details, as well as its Portuguese version, are available from the corresponding author on request.

**Code Availability** The code generated during the current study is not publicly available as it contains proprietary information that the authors acquired through a license. Information on how to obtain it is available from the corresponding author on reasonable request.

## Declarations

**Conflict of Interest** No potential conflict of interest was reported by the author.

**Consent to Participate** Consent was asked at the recruitment process and after each participants' interview, providing them with a form asking if they and their parents agreed or not with the adolescent's participation in the study.

**Consent for Publication** Data published in this study are done so with the signed permission of participants and their guardians. Consent was asked at the recruitment process and after each participants' interview, providing them with a form asking if they and their parents agreed or not that their data were anonymously shared in scientific presentations and publications.

**Ethics Approval** Ethics approval (No. 3.043.331, 28/11/2018) was obtained from The Federal University of São Carlos Human Research Ethics Committee, attending the ethical standards of the Brazilian National Health Council (Resolution 466/2012).

## References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
- Auerbach, R. P., Bigda-Peyton, J. S., Eberhart, N. K., Webb, C. A., & Ho, M.-H.R. (2011). Conceptualizing the prospective relationship between social support, stress, and depressive symptoms among adolescents. *Journal of Abnormal Child Psychology*, *39*, 475–487. <https://doi.org/10.1007/s10802-010-9479-x>
- Beirão, D., Monte, H., Amaral, M., Longras, A., & MatosVillas-Boas, C. F. (2020). Depression in adolescence: A review. *Middle East Curr Psychiatry*, *27*, 50. <https://doi.org/10.1186/s43045-020-00050-z>
- Benjet, C., Albor, Y. C., Bocanegra, E. S., Borges, G., Méndez, E., Casanova, L., & Medina-Mora, M. E. (2020). Incidence and recurrence of depression from adolescence to early adulthood: A longitudinal follow-up of the Mexican adolescent mental health survey. *Journal of Affective Disorders*, *263*, 540–546. <https://doi.org/10.1016/j.jad.2019.11.010>
- Bolsoni-Silva, A. T., & Fogaça, F. F. S. (2018). *Promove Pais-Treinamento de habilidades sociais educativas: Guia teórico e prático*. Hogrefe.
- Campos, J. R. (2010). Habilidades Sociais de adolescentes com indicadores de depressão: considerando fatores de gênero e socioeconômicos. *Dissertação de Mestrado*, Programa de Pós Graduação em Psicologia, Universidade Federal de São Carlos, São Carlos. [https://ppgpsi-ufscar.com.br/images/arquivos/dissertacoes-defendidas/007-Diss-Jrc\\_050615.pdf](https://ppgpsi-ufscar.com.br/images/arquivos/dissertacoes-defendidas/007-Diss-Jrc_050615.pdf).
- Campos, J. R., Del Prette, A., & Del Prette, Z. A. P. (2014). Depressão na adolescência: Habilidades sociais e variáveis sociodemográficas como fatores de risco/proteção. *Estudos e Pesquisas em Psicologia*, *v. 14* (2), 408–428, Universidade do Estado do Rio de Janeiro. <http://pepsic.bvsalud.org/pdf/epp/v14n2/v14n2a03.pdf>.
- Campos, J. R., Del Prette, Z. A. P., & Del Prette, A. (2018). Relações entre depressão, habilidades sociais, sexo e nível socioeconômico em grandes amostras de adolescentes. *Psicologia: Teoria e Pesquisa*, *34*, 1–10. <https://doi.org/10.1590/0102.3772e3446>
- Chentsova Dutton, Y. E., Choi, I., & Choi, E. (2020). Perceived parental support and adolescents' positive self-beliefs and levels of distress across four countries. *Frontiers in Psychology*, *11*, 353. <https://doi.org/10.3389/fpsyg.2020.00353>
- Clarke, V., & Braun, V. (2013). *Successful qualitative research: A practical guide for beginners*. Sage.
- Clayborne, Z. M., Varin, M., & Colman, I. (2019). Systematic review and meta-analysis: Adolescent depression and long-term psychosocial outcomes. *Journal of the American Academy of Child and Adolescent Psychiatry*, *58*(1), 72–79. <https://doi.org/10.1016/j.jaac.2018.07.896>.
- Collier, J. (1967). *Visual anthropology: Photography as a research method*. Sage.
- Comodo, C. N., Del Prette, A., & Del Prette, Z. A. P. (2017). Intergeracionalidade das habilidades sociais entre Pais e Filhos adolescentes. *Psicologia: Teoria e Pesquisa*. <https://doi.org/10.1590/0102.3772e33311>
- Creighton, G., Oliffe, J. L., Butterwick, S., & Saewyc, E. (2013). After the death of a friend: Young men's grief and masculine identities. *Social Science & Medicine*, *84*, 35–43. <https://doi.org/10.1016/j.socscimed.2013.02.022>
- Del Prette, Z. A., & Del Prette, A. (2021). *Social competence and social skills*. Springer.
- Drew, S. E., Duncan, R. E., & Sawyer, S. M. (2010). Visual storytelling: A beneficial but challenging method for health research with young people. *Qualitative Health Research*, *20*(12), 1677–1688. <https://doi.org/10.1177/1049732310377455>
- Drew, S., & Guillemin, M. (2014). From photographs to findings: Visual meaning-making and interpretive engagement in the analysis of participant-generated images. *Visual Studies*, *29*(1), 54–67. <https://doi.org/10.1080/1472586X.2014.862994>
- Gariépy, G., Honkaniemi, H., & Quesnel-Vallee, A. (2016). Social support and protection from depression: Systematic review of current findings in Western countries. *British Journal of Psychiatry*, *209*, 284–293. <https://doi.org/10.1192/bjp.bp.115.169094>
- Gili, M., Castellví, P., Vives, M., de la Torre-Luque, A., Almenara, J., Blasco, M. J., Cebrià, A. I., Gabilondo, A., Pérez-Ara, M. A., Miranda-Mendizabal, A., Lagares, C., Parés-Badell, O., Piqueras, J. A., Rodríguez-Jiménez, T., Rodríguez-Marín, J., Soto-Sanz, V., Alonso, J., & Roca, M. (2019). Mental disorders as risk factors for suicidal behavior in young people: A meta-analysis and systematic review of longitudinal studies. *Journal*

- of affective disorders, 245, 152–162. <https://doi.org/10.1016/j.jad.2018.10.115>
- Glaw, X., Inder, K., Kable, A., & Hazelton, M. (2017). Visual methodologies in qualitative research: Auto photography and photo elicitation applied to mental health research. *International Journal of Qualitative Methods*, 6, 1–8. <https://doi.org/10.1177/1609406917748215>
- Hutchinson, S. L., Baldwin, C. A., & Oh, S. S. (2006). Adolescent coping: Exploring adolescents' leisure-based responses to stress. *Leisure Sciences*, 28(2), 115–131. <https://doi.org/10.1080/01490400500483984>
- Khodaei, H., Fathi, A., & Alipour, R. (2021). Effectiveness of social skills training in the high-risk behaviors and communication skills of secondary school students. *Journal of Research & Health*, 11(3), 175–182. <https://doi.org/10.32598/JRH.11.3.1713.1>
- Luijten, C. C., van de Bongardt, D., Jongerling, J., & Nieboer, A. P. (2021). Associations between adolescents' internalizing problems and well-being: Is there a buffering role of boys' and girls' relationships with their mothers and fathers? *BMC Public Health*, 21(1), 1871. <https://doi.org/10.1186/s12889-021-11920-4>
- Moeller, R. W., & Seehuus, M. (2019). Loneliness as a mediator for college students' social skills and experiences of depression and anxiety. *Journal of Adolescence*, 73, 1–13. <https://doi.org/10.1016/j.adolescence.2019.03.006>
- Nilsen, W., Karevold, E., Røysamb, E., Gustavson, K., & Mathiesen, K. S. (2013). Social skills and depressive symptoms across adolescence: Social support as a mediator in girls versus boys. *Journal of Adolescence*, 36, 11–20. <https://doi.org/10.1016/j.adolescence.2012.08.005>
- Padgett, D. K., Smith, B. T., Derejko, K. S., Henwood, B. F., & Tiderington, E. (2013). A picture is worth...? Photo elicitation interviewing with formerly homeless adults. *Qualitative Health Research*, 23, 1435–1444. <https://doi.org/10.1177/1049732313507752>
- Plancherel, B., & Bolognini, M. (1995). Coping and mental health in adolescence. *Journal of Adolescence*, 19(5), 459–474. <https://doi.org/10.1006/jado.1995.1033>
- Pozuelo, J. R., Desborough, L., Stein, A., & Cipriani, A. (2022). Systematic review and meta-analysis: Depressive symptoms and risky behaviors among adolescents in low- and middle-income countries. *Journal of the American Academy of Child and Adolescent Psychiatry*, 61(2), 255–276. <https://doi.org/10.1016/j.jaac.2021.05.005>
- Racine, N., McArthur, B. A., Cooke, J. E., Eirich, R., Zhu, J., & Madigan, S. (2021). Global prevalence of depressive and anxiety symptoms in children and adolescents during COVID-19: A meta-analysis. *JAMA Pediatrics*, 175(11), 1142–1150. <https://doi.org/10.1001/jamapediatrics.2021.2482>
- Ren, P., Qin, X., Zhang, Y., & Zhang, R. (2018). Is social support a cause or consequence of depression? A longitudinal study of adolescents. *Frontiers in Psychology*, 9, 1634. <https://doi.org/10.3389/fpsyg.2018.01634>
- Riggio, R. E., Watring, K. P., & Throckmorton, B. (1993). Social skills, social support, and psychosocial adjustment. *Personality and Individual Differences*, 15, 275–280. [https://doi.org/10.1016/0191-8869\(93\)90217-Q](https://doi.org/10.1016/0191-8869(93)90217-Q)
- Romppanen, E., Korhonen, M., Salmelin, R. K., Puura, K., & Luoma, I. (2021). The significance of adolescent social competence for mental health in young adulthood. *Mental Health & Prevention*, 21, 200198. <https://doi.org/10.1016/j.mhp.2021.200198>
- Salavera, C., Usán, P., & Quilez-Robres, A. (2022). Exploring the effect of parental styles on social skills: The mediating role of affects. *International Journal of Environmental Research and Public Health*, 19(6), 3295. <https://doi.org/10.3390/ijerph19063295>
- Segrin, C. (1996). The relationship between social skills deficits and psychosocial problems: A test of a vulnerability model. *Communication Research*, 23, 425–450. <https://doi.org/10.1177/009365096023004005>
- Segrin, C. (2000). Social skills deficits associated with depression. *Clinical Psychology Review*, 20(3), 379–403. [https://doi.org/10.1016/S0272-7358\(98\)00104-4](https://doi.org/10.1016/S0272-7358(98)00104-4)
- Segrin, C. (2017). Indirect effects of social skills on health through stress and loneliness. *Health Communication*. <https://doi.org/10.1080/10410236.2017.1384434>
- Segrin, C., & Flora, J. (2000). Poor social skills are a vulnerability factor in the development of psychosocial problems. *Human Communication Research*, 26, 489–514. <https://doi.org/10.1111/j.1468-2958.2000.tb00766.x>
- Segrin, C., McNelis, M., & Swiatkowski, P. (2015). Social skills, social support, and psychological distress: A test of the social skills deficit vulnerability model. *Human Communication Research*, 42, 122–137. <https://doi.org/10.1111/hcre.12070>
- Sibeoni, J., Costa-Drolon, E., Poulmarc'h, L., Colin, S., Valentin, M., Pradère, J., & Revah-Levy, A. (2017). Photo-elicitation with adolescents in qualitative research: An example of its use in exploring family interactions in adolescent psychiatry. *Child and Adolescent Psychiatry and Mental Health*, 11, 49. <https://doi.org/10.1186/s13034-017-0186-z>
- Singh, N., Minaie, M. G., Skvarc, D. R., & Toumbourou, J. W. (2019). Impact of a secondary school depression prevention curriculum on adolescent social-emotional skills: Evaluation of the resilient families program. *Journal of Youth and Adolescence*, 48(6), 1100–1115. <https://doi.org/10.1007/s10964-019-00992-6>
- Steinberg, D. B., & Simon, V. A. A. (2019). Comparison of hobbies and organized activities among low income urban adolescents. *Journal of Child and Family Studies*, 28, 1182–1195. <https://doi.org/10.1007/s10826-019-01365-0>
- The World Health Organization (2019). Knowledge summary: Women's, children's and adolescent's health, 1. <https://www.who.int/pmnch/media/news/2019/PMNCH-knowledge-brief-1.pdf?ua=1>
- Trombeta, G., & Cox, S. M. (2021). The textual-visual thematic analysis: A framework to analyze the conjunction and interaction of visual and textual data. *The Qualitative Report*, 26(1), In press
- Viduani, A., Benetti, S., Martini, T., Buchweitz, C., Ottman, K., Wahid, S. S., Fisher, H. L., Mondelli, V., Kohrt, B. A., & Kieling, C. (2021). Social isolation as a core feature of adolescent depression: A qualitative study in Porto Alegre, Brazil. *International Journal of Qualitative Studies on Health and Well-Being*, 16(1), 1978374. <https://doi.org/10.1080/17482631.2021.1978374>
- Wang, C., Morrel-Samuels, S., Hutchison, P. M., Bell, L., & Pestronk, R. M. (2004). Flint photovoice: community building among youths, adults, and policymakers. *American Journal of Public Health*, 94(6), 911–913. <https://doi.org/10.2105/ajph.94.6.911>
- Yao, Z., & Enright, R. (2021). A longitudinal analysis of social skills and adolescent depression: A multivariate latent growth approach. *International Journal of Psychological Research*, 14(1), 66–77. <https://doi.org/10.21500/20112084.4793>

Young, J. F., & Mufson, L. (2003). *Manual for interpersonal psychotherapy: adolescent skills training (IPT-AST)*. Professional Psychology, Rutgers University.

Zhang, Q., Pan, Y., Zhang, L., & Lu, H. (2021). Parent-adolescent communication and early adolescent depressive symptoms: The roles of gender and adolescents' age. *Frontiers in Psychology*, *12*, 647596. <https://doi.org/10.3389/fpsyg.2021.647596>

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