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RESEARCH ARTICLE

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The association between family adversity and youth mental health outcomes

Oluwaseyi Somefun[1] | **Linda Theron**[1] | **Michael Ungar**[2]

[1]Department of Educational Psychology, University of Pretoria, Pretoria, South Africa

[2]Faculty of Health, Dalhousie University, Halifax, Nova Scotia, Canada

Correspondence

Oluwaseyi Somefun, Department of Educational Psychology, University of Pretoria, Pretoria 0027, NS, South Africa.
Email: oluwaseyi.somefun@up.ac.za

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Abstract

Background: The association between family adversity and young people's mental health outcomes in communities that experience economic instability has not been well explored in the South African context. Furthermore, the overtime interaction between resilience factors, family adversity, and young people's psychological functioning in African settings, like South Africa, is under-investigated.

Purpose: This study investigates the relationship between family adversity and conduct problems and depression at two-time points in a sample of youths in two South African communities stressed by their dependency on economically volatile oil and gas industries.

Method: This article draws on longitudinal data generated by the Resilient Youth in Stressed Environments (RYSE) study in South Africa, which included 914 and 528 (wave 1 and 3) adolescents and emerging adults (14–27-year-olds; *M* age = 18.36 years) living in Secunda/eMbalenhle and Sasolburg/Zamdela. Participants were sampled at baseline (wave 1) and 18–24 months later (wave 3). They self-reported experience of community violence, family adversity, resilience-enabling resources, conduct difficulties, and depression symptoms. Regression analyses were used to examine the unadjusted and adjusted association of family adversity on conduct problem and depression.

Results: About 60% of participants reported high family adversity. Regressions, however, revealed no association between family adversity and conduct problems and depression cross-sectionally and over time. Individual resilience, biological sex, and experience of victimization in the community, however, were associated with conduct difficulty while all three resilience factors were associated with decreased depression among participants.

Conclusion: Our study sheds light on the risk and protective factors for mental health outcomes of adolescents and youths who reside in volatile, turbulent communities and experience ongoing familial challenges. To effectively support the mental well-being of young individuals in such contexts, interventions must consider the potential ambivalence of the resilience factors they aim to strengthen.

KEYWORDS

conduct disorder, depression, economic stress, family adversity, resilience, South Africa

1 | INTRODUCTION

1.1 | Background

In sub-Saharan Africa, about 14% of adolescents experience significant psychological challenges, and one in 10 qualify for a psychiatric diagnosis (Jörns-Presentati et al., 2021). Even though adolescent mental health is cause for concern in sub-Saharan Africa, it is a neglected priority in the region (Sequeira et al., 2022). In South Africa, which is the geographic focus of this article, the mental health of adolescents is also neglected, as interest from the national government and policy makers remains low (Mokitimi et al., 2018).

While researchers have tried to address this neglect, most mental health studies have focused on the mental health of human immunodeficiency virus (HIV)-positive adolescents (Bhana et al., 2021; Casale et al., 2019; Sherr et al., 2018). More recently, there has been an interest in the mental health of adolescents during the coronavirus disease 2019 (COVID-19) pandemic (Haag et al., 2022), though the majority of these studies have used cross-sectional data (Jesson et al., 2021; Mngoma et al., 2021). The longitudinal studies on the mental health of adolescents in South Africa that have used national representative data to examine the association between social capital and depression used data collected between 2008 and 2017 (Somefun & Simo Fotso, 2020). Others have focused on adolescents in Urban South Africa (Kowalski et al., 2021), leaving a significant gap in our understanding of the factors that predict adolescent mental health in semi-rural/peri-urban communities that are susceptible to economic and social stressors, such as those related to resource extraction and processing industries producing petrochemicals (Cameranesi et al., 2022).

In response to the aforementioned gap, this article uses data generated at two-time points by adolescents and youths living in two South African communities that depend economically on volatile oil and gas (O&G) industries. While the O&G industry can bring economic benefits to a community, it can also exacerbate economic disparities. In many cases, the industry may create a boom-and-bust cycle, with periods of high employment and economic growth followed by downturns and job losses. Economic inequality can lead to feelings of hopelessness, low self-esteem, and a lack of opportunities, which can contribute to depression or conduct problems among young people (Twum-Antwi et al., 2020). This instability can also result in financial stress and insecurity for families, with negative spill-over effects for family functioning and heightened exposure to family adversity (Ellis & Dietz, 2017; Naicker et al., 2022).

Another way in which the mental health of young people may be affected by living in O&G communities could be through community stress and conflict. The presence of the O&G industry often attracts migrant workers. This can prompt conflicts over land rights, resource ownership, and economic benefits, leading to social tension, division, and community-wide stress (Malin, 2020). Youth in low-resource communities may witness and experience these conflicts, which can create a sense of instability, uncertainty, and insecurity, contributing to externalizing symptoms like conduct problems.

The stressors associated with the O&G industry are compounded by South Africa's colonial and Apartheid history of flagrant human rights abuses and ongoing legacy of structural violence and pervasive poverty (Zizzamia et al., 2019). In this context of chronic inequity, violent service delivery protests and violent crime proliferate in resource-constrained communities (Canham, 2018), and family functioning suffers (Cameranesi et al., 2022). Given the high levels of family and other adversity found in South African O&G communities (Höltge et al., 2021), and the relative paucity of longitudinal studies investigating which factors support the mental health of African adolescents and youths exposed to adversity (Theron, 2020), this study investigates the relationship between family adversity and adolescent conduct problems and depression cross-sectionally and over a 2-year period.

1.2 | Adolescent resilience: The role of family and community factors

Resilience is the capacity to respond adaptively (e.g., maintain/recover mental health) to high levels of stress (Masten, 2015). Following Bronfenbrenner (1992), this capacity is typically scaffolded by protective factors in young people themselves (e.g., biological or psychological strengths) and the proximate (e.g., their families or communities) and distal (e.g., local or national government) systems they are connected to (Masten et al., 2021; Ungar & Theron, 2020). Paradoxically, family and community systems, as well as distal ones, can make young people vulnerable to mental health challenges (Harter, 2015; Martin et al., 2018).

Extant research has shown that the family and community environment are particularly important variables when examining the mental health outcomes of adolescents (Daniels & Bryan, 2021; Scharpf et al., 2022). During their transition to adulthood, adolescents typically learn and model the behaviors and values found in their family and community environment, with cultural norms and practices influencing developmental outcomes (Lewis-Smith et al., 2020). The importance of these proximal systems is summarized next.

1.2.1 | Family-related risk factors

Family adversity is strongly linked with the socioeconomic status (SES) of the household (Suglia et al., 2022). Economic volatility would, therefore, be expected to influence youth mental health outcomes. A study in the United States, for example, found that the economic status of the household was associated with externalizing and internalizing symptoms among adolescents. Relatedly, Anderson et al. (2022) theorized that lower SES, which could be the result of lower household income or lower parental education, would increase adolescent exposure to family adversity through harsh parenting and that harsh parenting had negative effects on adolescent mental health. Other studies have also found that harsh or aggressive parenting impacted adolescent mental health negatively, with adolescents who experience aggression at home being more likely to display violent behaviors toward their peers (Yap & Jorm, 2015). The SES of the family may also influence the educational outcomes of adolescents such as school attendance or academic achievement. The mechanisms through which this occurs is believed to be through externalizing problems that may lead to adolescents being expelled from school (Jacobsen et al., 2019).

Experience of family adversities, such as parental abuse, divorce, neglect, parental mental illness, and domestic violence, is a public health issue in South Africa (Berejena Mhongera & Lombard, 2020). For example, in a South African sample of University students in the Western Cape, students who reported experiences of past neglect and emotional abuse reported higher rates of depression (Mall et al., 2018). Low household SES is implicated. For instance, adolescents who are raised by a single parent are more likely to be exposed to household poverty which may be associated with more externalizing behaviors (Crouch, Probst, et al., 2019). In South Africa, about 20% of children do not live with their parents and about 42% live with their mothers alone (Statistics South Africa, 2019). Similarly, a study about externalizing difficulties among school-attending adolescents in Uganda and South Africa emphasized the negative impact of household poverty on the conduct of South African adolescents (Kiiza & Newlin, 2022).

1.2.2 | Family-related protective factors

Family-related resources, such as warm parents and adequate resources, can protect young people from negative mental health outcomes when they are exposed to high levels of stress (Masten, 2015). Examining the associations between adversities, safe, stable, and nurturing relationships, and mental health outcomes, Crouch, Radcliff, et al. (2019) found that positive relationships moderated the relationship between adversities and mental health outcomes in a South Carolina sample. Having an adult—often a parent or other family member—who ensured that basic needs were met protected respondents from mental distress even though they were exposed to four or more adversities. Another American study focusing on substance abuse and violence in the family revealed the protective effect of positive family experiences, such as family cohesion, for young people's mental health and resilience (Daniels & Bryan, 2021).

Family-level resources, especially warm, affirming parents, are prominent in South African studies of youth resilience (Van Breda & Theron, 2018). For example, a cross-sectional study with 891 young people in two O&G communities in South Africa reported that warm caregiving and modest parental monitoring were associated with significantly fewer symptoms of depression and conduct problems (Theron, Rothmann, Makhnach, et al., 2022). The emphasis on family could fit with South Africa's traditionally collectivist culture and young people being socialized to appreciate their immediate and extended family (Ramphele, 2012). Given the importance of family (particularly parents), various South African studies promote interventions that support parents to reduce the occurrence of depression among adolescents (Kuo et al., 2019). These interventions involve parent-focused programs that build or strengthen caregiver resilience by enhancing self-efficacy and providing financial incentives to combat material deprivation in the household.

1.2.3 | Risk factors in the community

Neighborhood factors, such as the experience of violence and victimization in the immediate community, are associated with a higher prevalence of depression among adolescents living in those communities (Davis et al., 2020; Fowler et al., 2009). For instance, in the United States living in chaotic and violent communities (typically those with lower SES) was associated with depression among adolescents, although neighborhood social cohesion moderated the relationship (Dawson et al., 2019). Similarly, a review of 47 studies showed a strong association between neighborhood disadvantage and adolescent externalizing difficulties (such as conduct disorder) (Jennings et al., 2018).

South African studies report the same negative associations. For instance, the perception of crime at the community level was similarly associated with depression among a large sample of South African youth (Somefun & Simo Fotso, 2020). Similarly, a study with 616 adolescents who were exposed to multiple forms of violence and lived in a violent and disadvantaged community in the Western Cape, South Africa, reported negative associations for these young people's mental health, including externalizing difficulties (du Plessis et al., 2015). Relatedly, a cross-sectional analysis of survey data

generated by 421 South African adolescents showed that adolescent engagement with community traditions was positively and significantly associated with conduct difficulties (Cameranesi et al., 2022). The nature of the community (i.e., a violent and chaotic O&G community characterized as having a protest culture) is thought to explain the positive association.

1.2.4 | Protective factors in the community

Having positive peers and role models protects adolescents by strengthening their self-esteem and providing support when they are depressed (Biswas et al., 2020). Having a supportive network of friends may be an especially important protective factor for adolescents from families experiencing conflict or whose parents have mental health problems (Sierau et al., 2019). However, some have argued that the type and quality of peer support adolescents receive is dependent on the neighborhood adolescents reside in (Sanders et al., 2017).

A systematic review of South African child and youth resilience studies noted the importance of contextual resources for the well-being of South African adolescents (Van Breda & Theron, 2018). These included community-level resources such as supportive peers, recreational spaces, and supportive faith-based organizations. Subsequent studies continue to report the protective value, also for adolescent mental health, of community resources. For instance, although Ashaba et al. (2019) only sampled HIV-positive adolescents, their findings showed that adolescents who belonged to a religious group were better able to cope with the mental health challenges associated with living with HIV. Similarly, a cross-sectional study conducted with 576 young people in an O&G community in South Africa reported that spirituality, religiosity, family traditions, and community traditions were associated with significantly fewer symptoms of depression (Theron, Rothmann, Höltge, et al., 2022).

1.2.5 | Individual-level risk and protective factors

Individual-level characteristics, such as age, race, gender, and school attendance, have been associated with conduct problems and depression. A national study in South Africa found that youths aged 20–24 years reported significantly higher depression symptoms as compared with youth aged 15–19 (Somefun & Simo Fotso, 2020). With regard to gender, some studies have concluded that conduct problems are less common in young women (Konrad et al., 2022) and internalizing difficulties are less common in young men (Eme, 2007). South African studies confirm these patterns, with girls being more likely to display internalizing symptoms such as anxiety and depression (Somefun & Simo Fotso, 2020), and boys being more likely to display externalizing symptoms such as conduct disorder (Theron, Rothmann, Makhnach, et al., 2022). However, other studies challenge the notion that there are gender-based differences in conduct problems. For instance, in a sample of adolescents in the United States, girls' externalizing behaviors typically took the form of multiple sexual partnerships, and condomless sex. In comparison, boys abused drugs and alcohol (Holliday et al., 2017). A South African study exploring the mental health of adolescents during the COVID-19 pandemic found no differences in the conduct problems reported by male and female adolescents but this study did not specify how conduct problems were defined (Bloom et al., 2022).

Another factor at the individual level that could influence the mental health of adolescents and youth is their racial identification. In a country like South Africa, examining race is particularly important as people of color were purposefully disadvantaged by colonial and Apartheid laws (Zizzamia et al., 2019). The disparities associated with race or ethnicity may be a risk factor for various social problems and mental health difficulties (Blakey et al., 2021; Coxe et al., 2021). Certainly, in South Africa, historic and ongoing systemic disparities that are skewed toward South Africans of color have resulted in them facing disproportionate challenges to their mental health that are often beyond their personal control (Mungai & Bayat, 2019).

1.3 | Aims of the present study

Although multiple studies have documented the protective mental health effect of resilience factors for adolescents exposed to individual, family, school, and community adversity, resilience scholars like Masten et al. (2021) and Ungar and Theron (2020) have called for continued resilience studies, specifically ones that consider multiple resilience-enablers at different systemic levels. Furthermore, the existing studies that have highlighted the association between family adversity, resilience, and adolescent developmental outcomes have been mostly cross-sectional, with very few such studies conducted in sub-Saharan countries, like South Africa.

Where studies of the resilience of South African young people have been conducted in communities experiencing significant economic and social stress (as in O&G communities), cross-sectional results have been inconsistent. For example, three cross-sectional analyses of surveys completed by adolescents in O&G communities in South Africa reported

contradictory outcomes. Cameranesi et al. (2022) found that typical resilience resources (i.e., peer support and community engagement) did not protect adolescents from conduct difficulties in the context of family adversity. In contrast, Theron, Rothmann, Makhnach, et al. (2022) reported that warm caregiving and modest parental monitoring were associated with significantly fewer symptoms of depression and conduct problems. Meanwhile, Theron, Rothmann, Höltge, et al. (2022) found that spirituality, religiosity, family tradition, and community tradition were associated with significantly fewer symptoms of depression. No significant association was found for conduct problems.

Given the lacunae in evidence regarding the factors predicting mental health among youth populations living in communities affected by economic and social stress in sub-Saharan Africa, the aim of this study is twofold. First, it examines the longitudinal association between family adversity and conduct problems and depression among a sample of young people in South Africa. Second, it examines this relationship cross-sectionally.

2 | METHODS

2.1 | Study design

Data for this study comes from the Resilient Youth in Stressed Environments (RYSE) study. RYSE investigated the resilience of 14–24-year-olds living in O&G communities in Canada and South Africa. O&G communities were chosen as they exemplify exposure to multiple stressors, including family adversity, low levels of community cohesion, economic and social volatility, and physical ecological degradation (Ungar & Liebenberg, 2011). This article focuses on the South African communities only. We restricted the analysis to the South African sample because we wanted to contribute to the existing literature on resilience and youth developmental outcomes in sub-Saharan Africa; while research on these topics is extensive in North America, the well-being of youth in low- and middle-income countries (like South Africa) has received limited attention in the literature (Blum & Boyden, 2018). In South Africa, the communities of Secunda/eMbalenhle participated in the RYSE study, and Sasolburg/Zamdela communities participated in the RYSE replication study.

Secunda/eMbalenhle is the municipal seat of the Gert Sibanda District, Mpumalanga, one of South Africa's poorer provinces. It is home to the largest underground coal-mining complex in the world and boasts both mining and manufacturing sectors that contribute significantly to the local, provincial, and national GDP. The population of Secunda is approximately 40,000, with about 100,000 living in eMbalenhle, the township adjacent to Secunda. The total unemployment rate in the wider municipality is 26.2% while the youth (15–24 years) unemployment rate is 34.4% (Statistics South Africa, 2011).

Similarly, Zamdela is the township located next to the town of Sasolburg. Zamdela and Sasolburg are located in the Metsimaholo municipality in the Fezile Dabi District in another of South Africa's poorer provinces, the Free State Province. The population of Zamdela is just under 90,000, with an unemployment rate of about 43% (Statistics South Africa, 2011).

Both Secunda/eMbalenhle and Sasolburg/Zamdela depend heavily on local O&G industries for their livelihoods. This industry is characterized by economic volatility-related fluctuations in employment. Furthermore, the industry attracts multiple migrant workers which is associated with high levels of crime, violence, and low social cohesion (Statistics South Africa, 2011). As is typical in South Africa, exposure to these risks is racialized. Black Africans are disproportionately exposed to unemployment, discrimination, and violence (Tshishonga, 2019).

2.2 | Participants and recruitment

Young people aged 14–24 from Secunda/eMbalenhle and Sasolburg/Zamdela were invited to participate. The baseline data collection started in 2018 through 2020 with the end-line data collected 18–24 months later. As explained by Ungar et al. (2021), the RYSE advisory committee (local youth) and gatekeepers (e.g., staff from local nongovernment organizations) facilitated recruitment. Participant eligibility was determined by: (i) locality (living/attending school/working in RYSE-sites); (ii) age (14–24 years at baseline); (iii) English literacy; and (iv) awareness of (negative/positive) O&G industry-related impacts (e.g., witnessed or experienced industry-related layoffs; benefitted from industry-sponsored community investment programs). Eligible participants were invited to recruit peers who fit the eligibility criteria.

During the time of the survey, the participating communities were experiencing economic challenges related to a depressed world price for oil. These challenges included job insecurity, financial stress, family adversities, and mental health problems. In addition, these communities faced additional stressors (e.g., insufficient housing, crowded living conditions, environmental degradation, and recurrent protests due to delays in service delivery by the government. All of these issues have contributed to social unrest which often sparked lootings and destruction of public property (Theron, Rothmann, Höltge, et al., 2022). The study employed the same data collection instrument across all sites for each phase of the data collection.

Institutional Review Board (IREB) approval was obtained at the Faculty of Health Sciences Research Ethics Committee at the University of Pretoria with the reference number #UP17/05/01.

3 | DATA

3.1 | Outcome variables

Two outcome variables were used as proxies for mental health in this study: conduct problems and depression.

3.2 | Conduct problems

The RYSE study assessed conduct problems by using an adapted version of the Delinquency Scale (Geldhof et al., 2014). Specifically, participants were asked how many times during the past 12 months they (i) had stolen something from a store; (ii) gotten into trouble with the police; (iii) hit or beat up someone; (iv) damaged property just for fun (such as breaking windows, scratching a car, putting paint on walls, etc.); (v) carried a weapon (such as a gun, knife, traditional weapon, etc.); and, (vi) bullied someone. The responses were coded as never, once, twice, three to four times, and five or more times. The reliability coefficient across the waves was satisfactory (α = .66). Single item scores were summed to obtain an overall conduct problem score, with higher scores indicating the severity of the conduct problems.

3.3 | Depression

We used the Beck Depression Inventory-II (Beck et al., 1996), a widely used 21-item self-report scale, to measure depression symptoms in the 2-week time period preceding the RYSE survey. Each item has four statements relating to a symptom of depression; each successive statement reports a more severe expression of that symptom. A 4-point (0–3) scale captures that severity. The reliability coefficient was satisfactory (α = 87). Items were summed and categorized as per the inventory's manual: 0–13 = 1 "Minimal depression," 14–19 = 2 "Mild depression," 20–28 = 3 "Moderate depression," and 29–63 = 4 "Severe depression."

4 | INDEPENDENT VARIABLES

4.1 | Main independent variable

4.1.1 | Family adversity

We used the 10-item Family Adversity measure developed by Labella et al. (2019). Participants were asked to report whether or not, at any time in the past, they had experienced the death of a parent, caregiver, or sibling; lived in a violent home (e.g., been exposed to intimate partner violence); experienced parental divorce; lived with a parent/caregiver who abused substances or was (physically/mentally) ill; lived in a foster home; had a parent/caregiver in jail; or been separated from parent/caregiver for more than 1 month. These events have been included as family risk factors for adverse events in the literature (Bethell et al., 2017) and are associated with increased odds of conduct problems (Cameranesi et al., 2022). The items were summed to provide an indicator of the degree of family adversity experienced by respondents (scores= 0–10), with higher scores indicating higher family adversity (reliability was α = 59).

5 | OTHER INDEPENDENT VARIABLES

5.1 | Resilience

To measure resilience factors, we used the 28-item Child and Youth Resilience Measure (CYRM-28) that was designed by Ungar and Liebenberg (2011) to measure adolescents' perceptions of the protective resources available to them in low, middle, and high-income countries at the individual, relational, and contextual level. The individual subscale includes items that measure personal skills (e.g., "I cooperate with people around me"), social skills (e.g., "I know how to behave in different social situations"), and perceived peer support (e.g., "I feel supported by my friends"). The relational subscale measures psychological caregiving resources (e.g., "My

caregiver(s) know a lot about me") and physical caregiving resources (e.g., "If I am hungry there is enough to eat"). The contextual subscale includes spiritual resources (e.g., "I participate in organized religious activities"), cultural resources (e.g., "I enjoy my community's traditions"), and educational resources (e.g., "I feel I belong at my school"). Response options include "not at all," "a little," "somewhat," "quite a lot," and "a lot." Items were summed for each subscale (individual α = 74; relational α = 78; contextual α = 74) with higher scores indicating higher perceptions of available resilience resources.

5.2 | Control variables

We controlled for biological sex (categorized as male and female), age (categorized as adolescents [14–18 years] and emerging adults [19–27 years]), and school attendance (categorized as yes or no). All these variables were self-reported.

We also controlled for race (self-identified by participants, as is done in South Africa, as Black, White, Colored, and Indian). This was important for our analysis because Apartheid, a system of institutionalized racial segregation and discrimination, intertwined race and SES for the majority of South Africans (Zizzamia et al., 2019). Although Apartheid officially ended in 1994, its legacy continues to inform socioeconomic disparities in South Africa and intergenerational cycles of poverty. In general, Black South Africans are more likely to be poor and have lower levels of education than White South Africans. However, race is not necessarily destiny. Postapartheid opportunities are associated with the upward mobility of some South African people of color, with their SES being influenced by factors such as their access to quality education, decent employment opportunities, and residence in better-resourced neighborhoods (Kok et al., 2017).

Relatedly, we also controlled for household income (reported as salaries, wages, commissions; income from a business/self-employed; pensions; social welfare; maintenance; sales from farm products and services; other; and do not know). For this analysis, we collapsed responses into salaries; business/self-employed; social welfare (a combination of pension, sales from farm products and services, and social welfare), and maintenance (a combination of maintenance, others and do not know). The maintenance category was created to show miscellaneous income while social welfare indicates monies received from the government in the form of grant or pension. All of the aforementioned were self-reported.

Following from our review of the literature, we also controlled for the perception of neighborhood safety and victimization by the community. These variables are particularly important in the context of our study because violence is a pervasive South African social issue with associated negative impacts, including on youth mental health (Scorgie et al., 2017). Given this context, South Africans have a high likelihood of being exposed to at least one traumatic event during their life time, with emphasis on interpersonal and community violence (Sui et al., 2021).

To gauge how young people perceived their neighborhood, we used the Perception of Neighborhood Scale (developed in the social and health assessment (SAHA) study in the United States; (Ruchkin et al., 2004). We changed "neighborhood" to "neighborhood/community" to fit better with South African understandings. The scale included seven positively worded items that measure positive neighborhood connections and three negatively worded items that gauge racial conflict. Higher scores mean a more positive perception (reliability was α = 80). Similarly, we used seven items (developed by Richters and Martinez and adapted for the SAHA study (Ruchkin et al., 2004) to gauge victimization. Higher sum scores indicate the greater experience of victimization in the community (reliability coefficient, α = 50).

5.3 | Statistical analyses

Descriptive analyses were initially employed to assess the frequency distribution of the variables utilized in the study. Subsequently, bivariate analyses were conducted to explore the unadjusted and adjusted cross-sectional and longitudinal associations. This involved fitting two models. Model 1 examined the link between the independent variables at wave 1 and the outcome variables at wave 3. Additionally, this analysis was replicated to evaluate any changes when examining the association between the independent variables at wave 3 and the outcome variables at wave 3. Finally, to examine the adjusted relationships between the independent variables and the outcome variables, we employed multilevel linear regression models. Descriptive and analyses were conducted using STATA statistical software version 17.

6 | RESULTS

6.1 | Descriptive statistics

Table 1 presents descriptive statistics for all variables of interest as well as the sociodemographic characteristics of the study sample. We had a sample of 914 at wave 1 and 528 in wave 3. This means that 386 participants dropped out of the study. This attrition is not uncommon in African studies involving participants in stressed communities (Cockcroft et al., 2019).

TABLE 1 Summary of participant characteristics.

Variable	Wave 1	Mean (SD)	Wave 3	Mean (SD)
Depression		14.87 (10.47)		14.20 (10.75)
Minimal	442 (52.25)		277 (54.96)	
Mild	167 (19.74)		85 (16.9)	
Moderate	146 (17.26)		84 (16.7)	
Severe	91 (10.76)		58 (11.51)	
Conduct problems		7.1 (33.3)		5.6 (43.6)
Low	362 (40)		283 (53.7)	
High	544 (60)		244 (46.3)	
Family adversity		2.3 (1.75)		2.2 (1.85)
Low	333 (37.4)		214 (40.6)	
High	563 (62.8)		313 (59.4)	
Resilience		113.9 (14.7)		114.7 (16.8)
Low	438 (50.9)		231 (46.3)	
High	422 (49.1)		267 (53.6)	
Individual resilience		40.2 (5.90)		41.0 (6.53)
Low	460 (51.1)		229 (44.3)	
High	441 (48.9)		288 (55.7)	
Relational resilience		29.8 (4.7)		29.6 (5.2)
Low	402 (44.9)		237 (45)	
High	493 (55.1)		285 (55)	
Contextual resilience		39.7 (6.1)		39.7 (6.7)
Low	393 (44.3)		221 (43.6)	
High	495 (55.7)		286 (56.4)	
Age		17.7 (2.5)		19.4 (2.6)
14–18	578 (63.4)		240 (45.5)	
19+	334 (36.6)		287 (54.5)	
Biological sex				
Female	519 (57.3)		321 (60.9)	
Male	387 (42.7)		206 (39.1)	
Race				
Black	788 (86.2)		468 (88.6)	
White	110 (12.0)		51 (19.7)	
Colored	10 (1.1)		6 (1.1)	
Indian	6 (0.6)		3 (0.6)	
School attendance				
Yes	767 (87.1)		305 (57.9)	
No	114 (12.9)		222 (42.1)	
Source of income				
Salaries	551 (62.7)		278 (65.4)	
Business/self-employed	79 (8.9)		21 (4.9)	

TABLE 1 (Continued)

Variable	Wave 1	Mean (SD)	Wave 3	Mean (SD)
Social welfare	142 (16.2)		68 (16)	
Maintenance	107 (12.2)		58 (13.7)	
Perception of neighborhood				
Low	433 (49.1)		247 (47.4)	
High	448 (50.9)		274 (52.6)	
Victimization by community				
Low	389 (43.1)		268 (51.4)	
High	513 (56.9)		253 (48.6)	

We compared those who stayed between wave 1 and wave 3 ($n = 528$) to those lost to follow-up ($n = 386$) by basic sociodemographic characteristics (using χ^2 test). Our sample shows attrition bias (see Supporting Information: Table 1). The $n = 914$ participants that only participated in 2018 (42% attrition rate) were mostly female (57.3%) compared with 52.3% that were lost to follow-up ($p = .006$). The mean age was 16.64 years compared with 17.46 years in the lost to follow-up sample.

Overall, most participants (i.e., 85.9%) self-identified as Black African; young women were the majority at the two-time points (see Table 1). Participants reported a mean depression score of 14.8 in wave 1 and 14.2 in wave 3, which indicates mild depression levels according to the Beck Depression Inventory manual (Beck et al., 1996). While the depression scores were similar in wave 1 and 3, a different pattern was seen for conduct problems: 60% reported high conduct problems in wave 1 compared with 46% in wave 3. Participants reporting high family adversity decreased from 63% in wave 1 to 60% in wave 3. The resilience factors were combined to form a cumulative score. Adolescent's perception of available resilience-enabling resources increased modestly from 49% in wave 1 to 53% in wave 3.

6.2 | Family adversity and conduct problems

Supporting Information: Table 2 provides the cross-sectional and longitudinal results of the unadjusted associations between the independent variables and conduct problems. There was no significant relationship with family adversity experienced at wave 1 and conduct problems at wave 3 (longitudinal results).

In the adjusted model for conduct problems (Table 2), there was no relationship between family adversity and conduct disorder and these results did not change overtime (Table 3).

However, the cross-sectional results showed that individual resilience factors, experience of victimization in the community, and biological sex were positively associated with conduct problems. Individual resilience factors had a statistically significant moderate impact on conduct problems, indicating that participants with higher levels of individual resilience had a conduct problems score that was, on average, 0.57 units higher than those in the "low resilience" group, while controlling for other variables ($b = 0.57$, bSE = 0.27, 95% bCI = [0.02, 1.12]).

Experience of victimization in the community had a strong positive association with conduct problems; there was a 1.29 increase in conduct problems for every one unit increase in experience of victimization in the community ($b = 1.29$, bSE = 0.24, 95% bCI = [0.81, 1.76]).

Biological sex also showed a moderate positive associated with conduct problems. Being male was associated with an increase in conduct problems ($b = 0.49$, bSE = 0.24, 95% bCI = [0.01, 0.97]).

6.3 | Family adversity and depression

There was no significant association between family adversity and depression at one time point and overtime (see Supporting Information: Table 3).

In the adjusted model for depression, individual, relational, and contextual resilience factors were significantly associated with depression. Higher levels of individual ($b = -4.37$, bSE = 1.31, 95% bCI = [−6.95, 1.80]), relational ($b = -3.31$, bSE = 1.25, 95% bCI = [−5.77, 0.85]) and contextual resilience factors ($b = -2.95$, bSE = 1.21, 95% bCI = [−5.33, 0.56]) were associated a significant decrease in depression.

TABLE 2 Adjusted association between family adversity and conduct problems.

	Conduct problems					
	Wave 1			Wave 3		
	Coeff b	bSE (b)	95% bCI (b)	Coeff b	bSE (b)	95% bCI (b)
Family adversity	−0.10	0.20	−0.50 to 0.28	0.08	0.06	−0.04 to 0.20
Individual resilience	0.02	0.22	−0.42 to 0.46	0.57*	0.27	0.02 to 1.12
Relational resilience	0.07	0.21	−0.34 to 0.50	−0.42	0.26	−0.95 to 0.10
Contextual resilience	0.28	0.22	−0.14 to 0.72	0.03	0.25	−0.54 to 0.47
Perception of neighborhood	−0.14	0.19	−0.52 to 0.24	0.17	0.23	−0.27 to 0.62
Victimization by community	−0.20	0.20	−0.60 to 0.19	1.29***	0.24	0.81 to 1.76
Age						
15–18 (RC)						
19–24	−0.20	0.24	−0.68 to 0.27	0.56	0.32	−0.07 to 1.21
Biological sex						
Female (RC)						
Male	0.71***	0.20	0.32 to 1.11	0.49*	0.24	0.01 to 0.97
Race						
Black (RC)						
White	−1.04	0.30	−1.63 to −0.45	0.16	0.34	−0.51 to 0.85
Colored	−0.52	0.83	−2.16 to 1.11	1.82	0.87	0.10 to 0.75
Indian	−1.32	1.01	−3.32 to 0.67	0.50	1.23	−1.92 to 2.93
School attendance						
Yes (RC)						
No	0.10	0.28	−0.45 to 0.66	−0.63	0.32	−1.26 to 0.00
Income						
Salaries (RC)						
Business/self-employed	0.34	0.36	−0.35 to 1.05	−0.81	0.48	−1.77 to 0.17
Social welfare	−0.20	0.26	−0.72 to 0.32	0.15	0.30	−0.44 to 0.75
Maintenance	−0.24	0.29	−0.82 to 0.33	−0.53	0.34	−1.20 to 0.14

*$p < .1$ (Significant at 10%).
**$p < .05$ (Significant at 5%).
***$p < .01$ (Significant at 1%).

7 | DISCUSSION

The aim of this present study was to examine the longitudinal and cross-sectional associations between family adversity and conduct problems and family adversity and depression among young people (aged 14–24 at baseline) in two similarly risk-exposed South African communities. In so doing, we redressed the tendency of pre-existing South African studies to report only cross-sectional results (Cameranesi et al., 2022; Theron, Rothmann, Höltge, et al., 2022). We also controlled for salient variables (i.e., perception of neighborhood safety, experience of victimization in the community, age, biological sex, race, income, and school attendance).

Our results were surprising. Unlike previous studies that have linked family adversities with higher likelihood of conduct problems and depression among adolescents and youths (Anderson et al., 2022; Crouch, Radcliff, et al., 2019; Mall et al., 2018), we found no association between family adversity and conduct problems/depression at a point in time and over time. One possible explanation for this finding is the timeframe between the waves of the study. The time difference between wave 1 and 3 may not have been sufficient to capture the long-term effects of family adversity and conduct problems or depression among our sample. Another possible explanation is that the structurally violent context of the study

TABLE 3 Adjusted association between family adversity and depression.

	Depression					
	Wave 1			Wave 3		
	Coeff b	bSE (b)	95% bCI (b)	Coeff b	bSE (b)	95% bCI (b)
Family adversity	−0.19	0.80	−1.78 to 1.39	0.51	0.30	−0.09 to 1.11
Individual resilience	−0.96	0.92	−2.79 to 0.86	−4.37***	1.31	−6.95 to −1.80
Relational resilience	1.73	0.89	−0.20 to 3.49	−3.31***	1.25	−5.77 to −0.85
Contextual resilience	−0.69	0.91	−2.48 to 1.09	−2.95*	1.21	−5.33 to −0.56
Perception of neighborhood	−0.32	0.82	−1.93 to 1.28	−0.01	1.07	−2.12 to 2.10
Victimization by community	0.61	0.82	−1.00 to 2.24	1.83	1.11	−0.35 to 4.03
Age						
15–18 (RC)						
19–24	0.70	1.03	−1.13 to 2.73	0.36	1.51	−2.61 to 3.35
Biological sex						
Female (RC)						
Male	0.35	0.83	−1.28 to 1.99	−2.46	1.13	−4.68 to −0.23
Race						
Black (RC)						
White	−0.10	1.25	−2.56 to 2.35	0.06	1.63	−3.14 to 3.27
Colored	1.83	3.36	−4.77 to 8.45	−1.83	3.97	−9.64 to 5.98
Indian	7.26	4.41	−1.41 to 15.93	2.34	5.63	−8.74 to 13.42
School attendance						
Yes (RC)						
No	1.34	0.22	−0.82 to 3.50	0.94	1.48	−1.98 to 3.86
Income						
Salaries (RC)						
Business/self-employed	−0.08	1.50	−3.03 to 2.86	−0.51	2.23	−4.90 to −3.87
Social welfare	2.51	1.09	0.37 to 4.66	6.53	1.43	3.70 to 9.35
Maintenance	−3.53	1.27	−6.03 to −1.02	−2.59	1.65	−5.84 to 0.65

*$p < .1$ (Significant at 10%).
**$p < .05$ (Significant at 5%).
***$p < .01$ (Significant at 1%).

overshadowed or merged with adverse events within young people's families. Chronic exposure to structural and other forms of violence (as is the case in most disadvantaged communities in South Africa), which is often intertwined with family adversity, is associated with continuous traumatic stress and poor mental health (Kaminer et al., 2018). Had we measured composite risk exposure (e.g., the combination of family and community adversity exposure), our results might have been different.

The cross-sectional association between resilience factors and conduct disorder/depression were interesting too. The association was predictable for depression. Like previous cross-sectional South African study results (Theron, Rothmann, Höltge, et al., 2022; Theron, Rothmann, Makhnach, et al., 2022), and in keeping with classic understandings of the protective effects of resilience factors (Masten, 2015), higher levels of individual, relational and contextual resilience factors were associated with a significant decrease in depression. In comparison, there were no protective associations for any resilience factor and conduct disorder. Indeed, higher levels of individual resilience factors were associated with higher levels of conduct disorder. While this result is congruent with the cross-sectional analysis conducted by Cameranesi et al. (2022) and their finding that in a violent, chaotic community, traditional resilience-enablers (like peer support and community engagement) did not protect South African young people against conduct difficulties, it draws attention to the potential

ambiguous value of personal resilience resources. In a structurally violent context where violent protest is rife (Canham, 2018), it is possible that individual resources such as being cooperative and social might make it harder for youth to resist the pressure to engage in behaviors associated with conduct difficulty. Sanders et al. (2017) referred to this contradictory phenomenon as a "peer paradox." Alternatively, it is possible that in structurally violent contexts young people have little other recourse than to engage in violent agency that could potentially being about social change. However, given the potential conflict with the law, such an agency is ambivalent at best (Bordonaro & Payne, 2012).

Results also showed significant associations between biological sex, the experience of victimization in the community, and conduct problems among participants. While boys are typically associated with higher levels of conduct difficulties the world over (Eme, 2007), young men in South Africa are pressured to adopt a hegemonic mode of masculinity that includes being fearless risk-takers that embrace aggression (Shefer et al., 2007). Relatedly, South Africa is one of the most dangerous countries to live in, with violence reported to be at epidemic levels (Obagbuwa & Abidoye, 2021). Moreover, resource-constrained communities are repeatedly exposed to protest action with significant pressure for community members to participate (Canham, 2018). These protests, which are often in response to poor service delivery and government corruption, regularly include damage to public property and other acts that are typically associated with conduct problems. The prevalence of violence in these communities has been associated with low motivation to engage in prosocial behaviors among adolescents (Hendricks et al., 2015). Given all this, it is not surprising that a significant percentage of the sample reported negative community perceptions and experiences of victimization, as well as high levels of conduct problems.

8 | STRENGTHS AND LIMITATIONS

This article represents the use of longitudinal data collected from South African adolescents and youths in O&G-dependent communities characterized by violence, high unemployment rates among youths, and low social cohesion. Despite this strength, it should be noted that all our measures, including resilience factors, conduct problems, and depression, relied on self-report. Adolescents may be prone to under-reporting or exaggerating responses to align with expectations for social desirability. Additionally, and as discussed earlier, the increase in reported levels of conduct difficulty could have been an artifact of the widespread protest culture that is especially prevalent in resource-constrained communities in South Africa (Canham, 2018). There is significant pressure for community members to participate, which may encourage antisocial behavior among young people experiencing perceived collective marginalization in South Africa.

Our reliability coefficients were low compared with what has been found in other settings (Chung et al., 2020; Shek & Zhu, 2018), but we included these measures because the measures have shown to be related to important outcomes in other studies focusing on youth mental health outcomes. Furthermore, our results may not be generalizable to the entire population, due to our sample size. Relatedly, we acknowledge that attrition is a limitation, one shared by some other studies that follow young adults' overtime (Cockcroft et al., 2019). High attrition rates can lead to bias, as those who drop out of the study may differ from those who remain. However, we used inverse probability weighting to adjust for the bias in our sample and results remained the same.

9 | CONCLUSION

Our study highlights the complexity of supporting the mental health of adolescents and youths living in violent, chaotic communities and facing family adversity over time. While traditional resilience factors (i.e., individual, relational, and contextual resources) were associated with lower odds of depression, the same protective effects were missing for conduct difficulties. In highly stressed, socially unjust contexts like the South African communities in our study, it is possible that typical resilience-enabling factors offer insufficient protection and/or operate ambivalently. In such cases, being agentic and socially cooperative is likely to encourage resistance that overlaps with the antisocial behaviors associated with conduct difficulty. Supporting young people in these contexts to be mentally healthy will require consideration of the potential ambivalence of the resilience factors that interventions seek to bolster. Furthermore, it requires urgent redress of the structural violence and social inequities that demand ambivalent agency.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

ORCID

Oluwaseyi Somefun http://orcid.org/0000-0002-3842-2685
Linda Theron https://orcid.org/0000-0002-3979-5782
Michael Ungar https://orcid.org/0000-0003-0431-347X

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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