

Mediation of Mindsets in the Relationship Between Perceived Parental Psychological Control and Learned Helplessness Among Secondary School Students in Kenya

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ABSTRACT

Low motivation and passivity towards learning tasks resulting from perceptions of uncontrollability of outcomes is a persistent problem in schools. Literature has attributed this to the development of learned helplessness. Despite the adverse effects of learned helplessness in such aspects as decreased academic performance, self-destructive strategies, maladjusted behaviour, and depression, the construct remains largely unexplored among the Kenyan secondary school population Kenya. Additionally, findings on dispositional and contextual antecedents of learned helplessness remain equivocal. Against this background, the current study purposed to establish the prediction of learned helplessness from perceived parental psychological control. Further, the study explored the mediation of mindsets in the relationship. Using a cross-sectional research design, the study involved 383 form three students in Makueni County, Kenya. The study utilized full structural equation modeling to investigate the relationships among perceived parental psychological control, mindsets, and learned helplessness. Both perceived paternal ($\beta = .19, p < 0.01$) and maternal ($\beta = .25, p < 0.01$) psychological control significantly predicted learned helplessness. Mindsets partially mediated the relationship between both perceived paternal and maternal psychological control and learned helplessness. These findings highlight the dynamics between parental psychological control, mindsets, and learned helplessness. A key recommendation is that any interventions aimed at reducing learned helplessness among secondary school students may be more effective if they targeted reducing psychological control and adoption of incremental mindsets.

Keywords: Psychological control, Autonomy support, Learned Helplessness, Mindsets, Attribution

INTRODUCTION

Across the world, educational systems tend to adopt performance-oriented practices which, in nature, are competitive (Raufelder et al., 2018). Evaluation and feedback practices are not any different as they are inclined toward norm referencing (Sakina et al., 2021). The competitive nature of these practices can be deleterious, as they may amplify failure events. Whilst for some students, repeated failure experiences act as a stepping stone for future success, for others, it is interpreted as a negative evaluation of their competence (Buzzai et al., 2021). Although objectively, such failure experiences may be controllable, individuals may perceive a lack of consonance between the outcome and the effort invested in an activity (Peterson & Seligman, 1983, as cited in Xie et al., 2023). Exposure to this perceived uncontrollability of outcome may

lead one to feelings of helplessness.

Learned helplessness is a coping strategy to negative evaluations of a student's ability in which, they perceive non-contingence of outcomes to tasks as a result of repeated failure experiences (Filippello et al., 2018; He, 2021). It is a maladaptive attributional and behavioural pattern in which learners exhibit passivity and low motivation in response to academic tasks. Students with LH show low persistence and resilience in challenging academic tasks. Learners abstain from effort in a task under the conviction that whichever effort they apply to a given situation does not result in any change (Sorrenti et al., 2018). These learners base their lack of commitment on imminent failure resulting from internal, uncontrollable factors.

Helpless behaviour progressively creates deficits in the learner that impair their desire to learn. These impairments are threefold; cognitive, motivational and affective (Sharma, 2021). Motivational deficits interfere with the learner's initiation drive, cognitive deficits impair a learner's capacity to learn by adopting negative self-protective strategies such as procrastination. Affective deficits are exhibited in the form of low self-esteem, depression, and anxiety. Previous studies (Filippello et al., 2015; 2017; 2018; Gordon & Gordon, 2006; Raufelder et al., 2018) have shown learned helplessness to have adverse outcomes in academic setups. More specifically, learned helplessness has been attributed to negative self-protective strategies, avoidance, truancy, negative attitudes towards academic tasks, depression, low self-esteem, delinquency, and poor social skills. Buzzai (2021) adds that LH does not only affect the individual learner but also entire classrooms through disruptive classroom behaviours.

However, most of the available literature on learned helplessness and its predictors is based on Western and Eastern cultures with African contexts largely underrepresented. In addition, despite the existence of adequate indicators of learned helplessness (Ngunu et al., 2019) the problem remains largely under-researched. This study is an effort to address this gap. The rest of the article is structured thus: A review of the link between perceived parental psychological control and learned helplessness and the possible mediation role of mindsets in the relationship.

Perceived Parental Psychological Control

Developmental changes in adolescents come with a great desire for autonomy. Parents are of influence in the academic attainment of adolescents and as such their activities can amplify or buffer this quest for autonomy (Deci et al., 1994; Romm et al., 2020; Soenens & Vanskiteenkse, 2010). One of these impediments is psychological control. Oftentimes, parents impose standards and expectations on students, and to ensure that they are met, some may adopt psychologically controlling strategies towards the student (Filippello et al., 2017). When such social influences become controlling of a child's behaviour, it can undermine the autonomy of behaviour, thought and feelings. In this case, children may perceive a lack of chance and feel dictated by the individual.

Particularly, parental psychological control is a maladaptive parental pattern in an attempt to shape and regulate a child's mannerisms, study habits and peer relations. It is characterized by the general manipulation of the child by intrusion into their private emotional and psychological lives (Barber et al., 2012; Filippello et al., 2018; Raftery et al., 2012). In detail, parents tend to manipulate thoughts, feelings and attachments in such ways as shame, inducing guilt, conditional regard, use of overprotective tendencies or withdrawing love (Fang et al., 2022; Gao et al 2021). To ensure that the adolescent complies with the parent's expectations, they induce guilt and anxiety in the child and/ or withdraw affection (Scharf & Goldner, 2018). These parents emphasize failures while giving little credit to performance or the learning

process. These measures consequently interfere with the child's psychological functioning, expression of thought, and sense of autonomy. Filippello et al. (2015) point out that these impositions on the child lead to increased feelings of insecurity, frustration and helplessness.

Investigation into controlling parenting, which has been majorly confined to Western and Eastern cultures, has consistently been theorized to be predictive of negative scholarly and social outcomes. More concretely, learned helplessness (Filippello et al., 2015; 2017; 2018), substance abuse (Yang et al., 2021), low self-esteem and anxiety (Basili et al., 2021; Chen et al., 2020; Schleider et al., 2014), high-risk behaviours (Álvarez-García et al., 2019) along with over- and under-eating behaviours (Romm& Metzger, 2018) have been linked to controlling parenting. Although relatively understudied, the comparison of psychological control between maternal and paternal parenting dyads shows variations in the primary figure exerting control. (Basili et al 2021; Roman et al., 2012; Yan et al 2020). Perceived maternal control has been established to be more predictive of negative outcomes in adolescents than paternal control. A line of literature (Lu et al., 2017; Martin- Piñón et al., 2023; McCurdy et al., 2023) has focused on the maternal aspect of psychological control pointing to the primacy of maternal parenting practices on adolescents' psychological adjustment. Güngör and Bornstein (2010) posit that maternal psychological control may be particularly prevalent and consequential in children and adolescents since mothers often serve as primary caregivers and have more regular and close interactions with their children.

Variations in the association were observed across literature with respect to cultural differentiation. A review of studies shows that in Eastern cultures paternal control was more pronounced as compared to Western cultures where maternal control was more prevalent (Yan et al., 2020). Cultural differences in the severity of outcomes are reported based on the adolescents' view of the reasons for imposing control. Adolescents from individualistic cultures were found to exhibit more problematic behaviours, resulting from the frustration of the need for autonomy. In conservative cultures such as Eastern Asia's, parental control is mostly viewed as a well-intentioned normative parental practice intended to keep them safe. These adolescents had fewer negative outcomes as a consequence of the practices compared to those from Western cultures (Barber et al., 2012; Yan et al., 2020). It was therefore imperative to investigate the association between controlling parenting and learned helplessness in an African context.

The Role of Mindsets

Perceived competence is central in learned helplessness literature and has been widely studied in scholarly achievement contexts. Under implicit theories of intelligence framework, Kapasi and Pei (2019) observe that individuals conceive competence as either fixed (stable/ static mindsets) or subject to change (modifiable/malleable/ incremental mindsets). Mindsets have been established to influence numerous facets of learning, including resilience, motivation, well-being, achievement, and self-regulation. In line with literature from America (Smiley et al., 2016), Ghana (Gorleku et al., 2018) and Kenya (Mutua et al., 2018; Ng'ang'a, 2019), students with a malleable view of intelligence experience positive affect when engaged in academic tasks, set achievable academic goals, better achievement and are resilient in the face of challenges. Conversely, individuals with static perceptions of intelligence are less likely to devote effort after failure experiences and as such are comparatively more predisposed to helpless feelings when faced with challenging situations.

Autonomy-thwarting tendencies have been theoretically and empirically linked to the development of a helpless motivational orientation in students (Ghasemi, 2021; Raufelder et al., 2022). Additionally, a growing body of literature has demonstrated that controlling tendencies shape the mindsets children hold.

For instance, Schiffrin et al. (2019) point out that controlling practices from figures in authority, especially on emerging adults, undermine the individual's view of competence and may therefore predispose them to hold fixed mindsets. The critical undertone communicated by psychological control conveys that a child is ineffective of meeting their parents' expectations. Consequently, learners develop a sense of insecurity around their perceived ability as inadequate and unchanging (Soenens & Vansteenkiste, 2010).

Furthermore, Ziegler et al. (2021) argue that the fixed view of intelligence is a 'risk factor' for feelings of uncontrollability in the face of challenges. On this basis, therefore, adolescents' beliefs of intelligence were hypothesized to mediate the association between controlling parenting, and LH such that adolescents with fixed perceptions of ability are more likely to experience helpless cognitions resulting from controlling parents. This is consistent with literature where it was found that students with low self-belief in their ability, even under optimal peer, parental and teacher support, showed consistently high levels of LH (Wu & Tu, 2018). While this study fronts mindsets as a potential intervention point for the relationship between psychological control and learned helplessness, it is imperative to view this in light of debates on the effectiveness of mindset interventions (see Sisk et al., 2018). Overall, when tailored to the specific learners' needs, mindset interventions have shown to be promising tools to enhance learning outcomes (Burnette et al., 2023; Combette et al., 2023; Donohoe et al., 2022; Yeager et al., 2016).

It is, based on the above that we deductively hypothesized that.

H_{a1}: There is a relationship between perceived parental psychological control and learned helplessness.

H_{a2}: Mindsets have a significant mediation role in the relationship between perceived parental psychological control and learned helplessness.

MATERIALS AND METHODS

Research Design

A quantitative cross-sectional research design was employed in the study (Hunziker & Blankenagel, 2024). A predictive correlational design was used to analyze the relationships among the variables. More significantly, a model-testing approach was employed to assess the theoretical proposition of the mediation of mindsets.

Participants and Procedures

Pen and paper questionnaires were administered to a sample of 383 form three students in Makueni County, Kenya; of whom 204 (53.3%) were female and 179 (46.7%) were male. Respondents were aged between 14 and 22 years ($M_{age} = 16.8$; $SD = 1.08$). Students were randomly sampled from boys only boarding schools (24.3%), girls only boarding schools (21.9%) and co-educational schools (52.5%).

Ethics Statement

The National Council for Science Technology and Innovation (NACOSTI) reviewed and approved studies involving human participants (NACOSTI/P/23/20912). Written informed consent was obtained from respondents and their parents and legal guardians. Data were collected in the third term in a classroom context. Participation was voluntary and every respondent gave informed consent. The parents served as legal guardians for students under the age of 18 and filled out the informed consent alongside the students.

INSTRUMENTS

Psychological Control Scale – Youth Self-Report Questionnaire (PCS-YSR, Barber, 1996)

Respondents' views on controlling parenting were assessed using the PCS-YSR. The tool is tailored to assess adolescents' perceptions of controlling parenting and can be adapted to assess both the maternal and paternal component separately. Respondents were expected to rate 8 items along a six-point summative scale spanning from 'not like him/her' to 'a lot like him/her'. Scoring involves summation of items with higher scores indicating high levels of perceived parental psychological control. According to Barber et al. (2005), the tool is psychometrically robust in the prediction of adolescent behaviours as demonstrated across diverse samples. In a recent study reliability of $\alpha = .77$ and $.79$ for maternal and paternal control respectively were found (Aydin & Özyürek, 2021). In the current study sufficient reliability coefficients of $\alpha = .69$ and $\alpha = .74$ were established for paternal and maternal sections respectively.

Implicit Theories of Intelligence Scale (Dweck & Molden, 2000)

To assess students' mindsets, the Implicit Theories of Intelligence Scale was used. It is an 8-item, five-point bipolar Likert scale, with strongly agree and strongly disagree being the extremes. Half the items measure fixed beliefs (*Items 1, 2, 4 & 6*) while the rest assess incremental perceptions of competencies. Items were rephrased in the first-person point of view. The measure was ideal for the study as it has been found to have adequate reliability of $\alpha = .89$ on a Kenyan sample (Mutua et al., 2018). In the current study the scale had an acceptable internal consistency of $\alpha = .73$. Fixed mindset items were reverse coded. A summated score yielded a general malleable score.

Learned Helplessness Scale (LHS; Quinless & Nelson, 1988)

The students' levels of Learned helplessness were measured using the LHS. Respondents were required to rate according to the degree of agreeability with each of the 20 items on the scale. The four-point bipolar Likert scale has received adequate cross-cultural validity and reliabilities ranging from $\alpha = .79$ to $.93$ among samples of secondary school students (Acheho, 2018). Half the items measure mastery orientation and were reverse-coded. A composite score was computed and ranged between 20 to 80.

DATA ANALYSIS AND DISCUSSION

The structural equation modeling (SEM) analysis was executed using AMOS 18 to investigate multivariate relationships (Fan et al., 2016), while IBM SPSS Version 28 was employed for performing descriptive statistics, calculating Cronbach's alpha, and examining zero-order correlations using the Pearsons Products Moment Correlation Coefficient, in the study.

Data Analysis

Factor structure

As per the recommendations by Heritage et al. (2014) since the study adapted already existing tools with well-published factor structures, the validity of the tools was undertaken using confirmatory factor analysis for all the scales. The fit indices are reported in Table 1.

Table 1. CFA Fit Indices for the Measures

Scale	χ^2/df	GFI	CFI	NFI	RMSEA
PCS-YSR (Paternal)	1.48	.985	.985	.955	.035
PCS-YSR (Maternal)	2.306	.988	.983	.971	.058
ITIS	4.617	.964	.894	.870	.097
LHS	2.312	.977	.936	.895	.059

Note. χ^2/df = Chi-square/df; *GFI* = goodness of Fit Index; *CFI* = Comparative Fit Index; *NFI* = Normed Fit Index; *RMSEA* = Root Mean Square Error of Approximation

All the scales were within the benchmark recommended for model fit indices as stipulated in Collier (2020) save for the χ^2/df and NFI in Implicit theories of intelligence and the learned helplessness which were slightly lower. Values of .05 and .10 or less are considered an acceptable fit for the Root Mean Squared Error of Approximation (RMSEA) and the Standardized Root Mean Squared Residual (SRMR) respectively. For the common relative fit indices, such as the Normed Fit Index (NFI) and the Comparative Fit Index (CFI), values greater than 0.90 would be seen as favourable (Hu & Bentler, 1998).

The discriminant validity of the instruments was then estimated using the Heterotrait Monotrait (HTMT). The estimates are reported in Table 2.

Table 2. HTMT Ratios for the Variables

Scale	1	2	3	4	5
1. Perceived Paternal Psychological Control					
2. Perceived Maternal Psychological Control	0.28				
3. Mindsets	-0.07	-0.08	-0.05		
4. Learned Helplessness	0.06	0.09	0.10	-0.11	

Table 2 shows that all HTMT ratios fell below the recommended value of 0.9 indicating that there was adequate discriminant validity among the constructs. Cheung et al. (2023) offers guidelines on the HTMT ratio whereby values below .90 are considered acceptable.

Preliminary Analysis

Descriptive analysis, bivariate correlations and internal consistencies were explored. The findings are reported in Table 3.

Table 3. Descriptive Statistics and Reliability Coefficients

	Range	<i>M</i>	<i>SD</i>	<i>Sk</i>	<i>Kur</i>		1	2	3	4	5
PPPC	1-6	2.42	.80	.86	.95		$\alpha=.69$				
PMPC	1-6	2.47	.84	.84	.96		.49**	$\alpha=.74$			
Mindsets	1-5	4.08	.91	-.50	-.27		-.16**	-.14**	-.08	$\alpha=.73$	
LH	1-4	2.07	.33	.41	.13		.11**	.18**	.19**	-.22**	$\alpha=.68$

Note. ** = 0.01 Significance level (two tailed); *M* = Mean; *SD* = Standard Deviation; *Sk* = Skewness; *Kur* = Kurtosis; *PPPC* = Perceived paternal psychological control; *PMPC* = Perceived maternal psychological control; *LH* = Learned helplessness.

Table 3 indicates that skewness and kurtosis values ranged between ± 1 and ± 10 respectively suggesting data normality as per recommendations by Bono et al. (2020). As shown, the values for all variables except mindsets were positively skewed indicating that respondents tended to score lower on these variables. Cronbach alpha values ranged from $\alpha = .68$ to $.75$, which reflect acceptable values, based on the suggested cut-off point of $.70$ (Barbera et al., 2020). To check for possible multicollinearity, a correlation matrix was developed. It is noted that except for the moderate relationship between perceived paternal and maternal psychological control ($r = .49^{**}$), all other relationships had weak relationships ranging from $r = -.16$ to $.22$. This indicates a low possibility of multicollinearity among the variables.

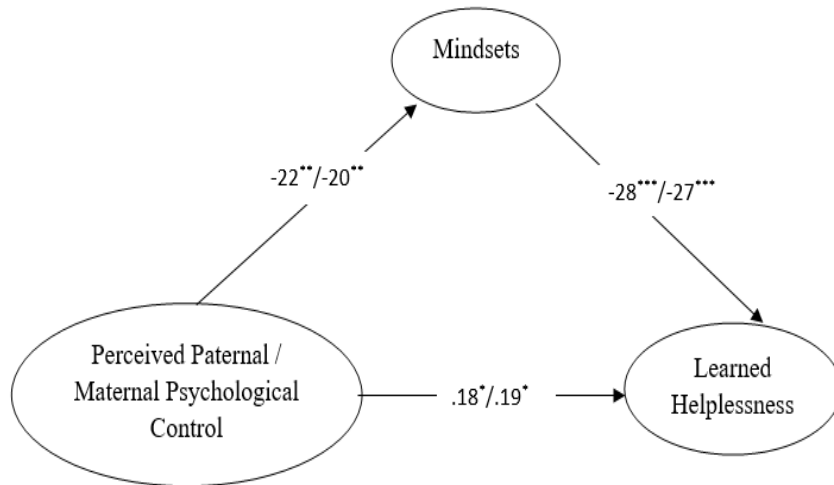
Model Analysis

The present study investigated the associations between perceived parental psychological control and learned helplessness and further explored the mediation of mindsets in the relationships. Initially, the direct links between the predictors parental psychological control and learned helplessness were undertaken without incorporating mindsets.

The evaluation for model on the prediction of learned helplessness from perceived maternal psychological control; $\chi^2 / df = 1.569$; $GFI = .955$; $NFI = .839$; $CFI = .934$; $RMSEA = .039$ yielded significant paths ($\beta = .19, p < .01$). Likewise, the prediction of Learned Helplessness from perceived maternal control: $\chi^2 / df = 1.287$; $GFI = .972$; $NFI = .909$; $CFI = .978$; $RMSEA = .027$ showed a significant path ($\beta = .25, p < .01$).

Further, to explore the possible mediation of mindsets as per the hypothesized models, a SEM with 5000 samples bootstrapping was undertaken (Tibbe & Montonya, 2022). Fit indices reveal that the data and data had a good fit for both models. Paternal model; $\chi^2 / df = 1.489$; $GFI = .941$; $NFI = .806$; $CFI = .925$; $RMSEA = .036$ and the maternal model as $\chi^2 / df = 1.505$; $GFI = .946$; $NFI = .832$; $CFI = .935$; $RMSEA = .036$.

Figure 1. The Mediation Model of Relationships



Note. Coefficients displayed are standardized path coefficients. The first coefficient corresponds to the model of maternal psychological control, while the second coefficient pertains to the model of paternal psychological control. Findings on the mediation of mindsets are reported in Table 4.

Table 4. Mediation Analyses Findings

Relationship	Direct Effects	Indirect Effects	Confidence Interval (95%)		P-Value	Conclusion
			Lower Bound	Upper Bound		
Perceived Paternal Psychological Control > Mindsets > Learned Helplessness	$\beta = .18, p < .05$	$\beta = .062$	.010	.077	.002	Competitive Partial Mediation
	$\beta = .19, p < .05$	$\beta = .054$	.006	.076	.008	
Perceived Maternal Psychological Control > Mindsets > Learned Helplessness	$\beta = .19, p < .05$	$\beta = .054$	.006	.076	.008	Competitive Partial Mediation

As espoused, the direct and indirect effects were examined with a bias corrected bootstrap interval. Direct effects between Perceived paternal psychological control and learned helplessness were established as significant ($\beta = .18, p < .05$). Indirect effect show that paternal control was significantly related to mindsets ($\beta = -.22, p < .01$): In turn mindsets were significantly and negatively related to LH ($\beta = -.28, p = .001$). Further, from the examination of direct and indirect effects, it was established that there was a significant indirect effect of perceived paternal psychological control and learned helplessness through mindsets ($\beta = .06, p < .01$). It was, therefore, established that Mindsets partially mediated the relationship between perceived paternal psychological control and learned helplessness.

Further, the estimate for the direct path between maternal psychological control and learned helplessness was positive and significant ($\beta = .19, p < .05$). Moreover, the combined indirect effects of perceived maternal

psychological control to learned helplessness through mindsets were established to be significant ($\beta = .054, p < .01$). Considering that the indirect effects are significant and negative, as of the direct effects, it is therefore concluded that there was a competitive partial mediation of mindsets in the relationships. The statistically significant direct effect in both relationships indicates that the relationship between perceived parental psychological control was only marginally stronger when student mindsets were high (incremental). Specifically, students with reported high incremental mindsets exhibit lower levels of learned helplessness resulting from controlling parenting.

DISCUSSION

Following the need to address the gap in knowledge in the associations between perceived parental psychological control and adolescent functioning and scholarly outcomes as well as further the discourse on understanding the mechanisms involved (Filippello et al., 2015; Yan et al., 2020); the current investigation sought to establish the prediction of learned helplessness from perceived parental psychological control. The study further explored the role of mindsets, a dispositional variable, as an intervening variable in the association between perceived parental psychological control and learned helplessness.

In the first hypothesis, the study sought to establish whether perceived parental psychological control was predictive of learned helplessness. In line with our hypothesis, perceived parental psychological control both for the paternal and maternal dimension were established to be positively and significantly predictive of increased students' learned helplessness. The findings reflect findings on adolescent samples across other cultures on the detrimental effects of autonomy frustration on adolescents' scholarly functioning (Filippello et al., 2015; 2017; 2018; Yan et al., 2020). Perceived psychological control limits an individual's self-initiation and psychological autonomy by pressuring them to behave, think and feel in determined ways. Such learners may feel that they lack a choice thus severing their self-efficacy resulting in helpless cognitions (Soenens & Vanskiinste, 2010). The critical undertone accompanied by controlling parenting such as invalidation and emphasis on failure rather than the learning process consequently increases feelings of insecurity and frustration among the learners.

Further, the findings are in congruence with findings on the prediction of adolescent problem behaviours by parental control across the parenting dyad (Rodgers et al., 2020; Yan et al., 2020). Perceived maternal control was established to be strongly predictive of negative outcomes primarily because mothers serve as the primary caregivers and have closer interactions with the child (Güngör & Bornstein, 2010). It is expected that the collectivist cultural dynamics Africans hold, fathers express control by demanding excessively high degrees of achievement. In collectivist cultures, where group harmony is highly valued, psychological control may be viewed as a well-intentioned form of guidance and care and may resultantly have lesser negative behavioural outcomes (Pomerantz & Wang, 2009; Barber, 2012).

The second objective explored the possible mediation of mindsets in the association between perceived parental psychological control and learned helplessness. Findings show that in both maternal and paternal models, mindsets partially mediated the mentioned relationships elucidating the centrality of mindsets. The indirect link between perceived parental psychological control and learned helplessness affirms previous findings on parental behaviours in shaping children's ability beliefs (Gao et al., 2020; Jin 2022; Schiffrin et al., 2019; Zarrinabadi et al., 2021). Parental expectations resulting from controlling parenting, especially on emerging adults may be internalized as fixed mindsets. Further, in the existing literature (Smiley et al., 2016; Ziegler et al., 2021) incremental mindset were established to be negatively predictive of learned

helplessness. The mindsets framework provides a meaning system, where effort attribution is linked to the post-failure intention to plan a remedial plan (Kapasi & Pei 2022). This suggests that students with incremental mindsets who attribute failure to lack of effort are more likely to take a remedial plan after being faced with failure-inducing situations. Conversely, those with fixed mindsets are more likely to be withdrawn after failure.

This study provides evidence of the associations between psychological control and negative scholarly outcomes and suggests a possible mechanism for explaining the association. Incremental mindsets are therefore construed as a buffer for the deleterious controlling effects in adolescents' outcomes and may therefore lessen the interpretations of the parental behaviour as well as the expectations. Conversely, fixed mindsets theorists may conceive competence as unchanging and, under increased levels of psychological control, may have comparatively higher helpless cognitions (Fillipello et al., 2018). Although a causal link cannot be definitively determined, it is plausible to infer that, with the critical tone characteristic of parental psychological control, this could potentially undermine adolescents' confidence in their competence resulting in a view of abilities as static (Soenens & Vanskisteenkse 2010). The perceived loss of control over their learning abilities may accelerate the development of learned helplessness.

The study offers an understanding of the associations between perceived parental psychological control and learned helplessness in the Kenyan educational and cultural context. Moreover, the identification of mindsets as potential intervention points for the association between perceived parental psychological control and learned helplessness. These findings may advise on potential identification and early interventions to alleviate learned helplessness (For instance; motivational interventions, mindsets interventions, and attributional retaining). Accordingly, mindsets are a dispositional variable that should be nurtured at the formative stages of learning. To this end learners may attribute failure to a lack of effort rather than lack of ability.

However, this study was not without limitations; Firstly, whilst literature affirms that interpersonal environments exert a notable influence on adolescents' cognitive and motivational functioning, the direction of effects were not sufficiently examined due to the cross-sectional nature of the data. The lack of temporal order rendered by the cross-sectional nature of data collection and the correlational design precludes the drawing of causal conclusions and the determination of potential reciprocal relationships. Future studies might use experimental methods. Furthermore, the variables under study were not observed directly. Rather, the study employed self-report measures. Considering the distinct cognitive and self-awareness developments as well as perceptual shifts in psychological control with age, it is important to consider the input of adolescents (Barber, 1996). However, it is difficult to declare with certainty that the responses to the questionnaires are fully reflective of actual behaviour. Future studies may use a multiple-informants-approach to further the findings' validity.

The study established partial mediation of mindsets in both paternal and maternal dimensions, it would be interesting to investigate other variables as well as understand the relationship between psychological control and other adolescents' outcomes. Lastly, although the internal consistencies among the tools were acceptable, they were not impressive. There is need to adapt a variety of measures to accurately measure the constructs in the current cultural context.

CONCLUSION

In sum, the current study extended findings on the prediction of adolescent problem behaviours from

perceived parental psychological control. Findings suggest that perceived parental psychological control is a predictor of learned helplessness. Additionally, mindsets serve, partially, as an intervening variable in the relationship. This study adds to the understanding of psychological control across different cultures and serves as an outlet for further investigation especially on the adolescents learning outcomes.

Data Availability Statement

Data will be availed upon request.

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