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Research paper

Falling short of fatherhood ideals: Masculine gender role stress and emotion dysregulation as mechanisms linking childhood trauma to fathers' depressive symptoms

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ABSTRACT

Parental depressive symptoms have been primarily documented in mothers during the first postpartum year. Yet, growing evidence shows that fathers also experience depressive symptoms and that these symptoms may persist as parents navigate the challenges of raising toddlers. A history of cumulative childhood trauma is a known risk factor for parental depressive symptoms, but the mechanisms explaining this association in fathers remain understudied. One significant correlate of depressive symptoms in fathers is masculine gender role stress, the distress arising from a perceived inability to meet the expectations associated with a specific gender role. This study focused specifically on masculine gender role stress linked to feelings of subordination to women, which may be especially relevant in parental gender dynamics. Emotion dysregulation has also been examined as a potential explanatory factor linking cumulative childhood trauma and parental depressive symptoms. Using a randomly selected sample of 719 fathers raising a toddler, this study examined the sequential indirect effects of masculine gender role stress and emotion dysregulation in the association between cumulative childhood trauma and parental depressive symptoms. Participants completed self-reported measures online. Results of path analysis revealed that cumulative childhood trauma was sequentially associated with parental depressive symptoms through masculine gender role stress and emotion dysregulation ($R^2 = 37.2\%$). These findings underscore the potential relevance of developing trauma-sensitive prevention programs that address emotion dysregulation and masculine gender role stress in early fatherhood. Implications are discussed considering the current sociocultural climate and the resurgence of more rigid forms of masculinity.

1. Introduction

Over the last decade, research has increasingly recognized the importance of better understanding fathers' mental health difficulties (Cheung and Theule, 2019). In particular, parental depressive symptoms (PDS) during the early parenting years are prevalent, with serious implications for the father, their partner and their children (Demirci and Inan, 2023). Studies estimate that between 5% and 10% of fathers report PDS during the first few years of parenting (Cheung and Theule, 2019; Rao et al., 2020). Despite its prevalence, experiencing PDS remains stigmatized, as societal norms often pressure parents to find fulfillment in their caregiving role (Godbout et al., 2023).

Prior research has mostly focused on mothers' experiences of PDS during the first postpartum year (Putnick et al., 2020). Although growing evidence shows that fathers also experience PDS in this postpartum period, few studies have investigated their PDS, especially beyond the first postpartum year (Álvarez-García et al., 2024; Chhabra et al., 2020; Golding et al., 2024). Yet, PDS may persist into the early years of childhood for many parents (Johansson et al., 2017), as they navigate the challenges of raising toddlers (i.e., children aged between 16 and 36 months). Commonly referred to as the "terrible twos", this period is characterized by toddlers' drive for autonomy, which often exceeds their actual abilities (e.g., brushing teeth, getting dressed), leading to frequent emotion dysregulation, tantrums, and oppositional

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behaviors (Deichmann and Ahnert, 2021). These developmental challenges may place additional strain on parents, highlighting the need to examine PDS during this critical period (Kwon et al., 2013).

Since fathers are less likely to seek or receive support when facing mental health challenges (Reay et al., 2023), it is critical to understand the factors contributing to their PDS during their child's toddlerhood, as untreated symptoms may worsen over time (Kiviruusu et al., 2020). One key risk factor for PDS is cumulative childhood interpersonal trauma (CCT; Fu et al., 2024). Although research has documented a link between CCT and PDS, the mechanisms that might help explain this link in fathers remain largely unknown (Godbout et al., 2023; Skjothaug et al., 2014). Yet, as fathers become increasingly involved in childcare in Western countries, they may face unique challenges over the toddler years, such as navigating both traditional and contemporary fatherhood expectations (e.g., being strong and protective while also being emotionally sensitive; Petts et al., 2018). Previous studies indicate that fathers' elevated levels of masculinity-related stress concerning their ability to meet such expectations are associated with increased PDS (Álvarez-García et al., 2024; Eddy et al., 2019). Moreover, research suggests that both fathers with a history of CCT and those experiencing PDS often report difficulties regulating emotions (Petts et al., 2018). Thus, we examined whether masculinity-related stress and emotion dysregulation could potentially help explain the link between CCT and PDS. Identifying these underlying mechanisms may inform the development of targeted interventions and prevention efforts aimed at fostering fathers' resilience during toddlerhood (Baldoni and Giannotti, 2020).

1.1. CCT and father's PDS

CCT refers to having been exposed to multiple types of adverse experiences within a relational context before the age of 18 (e.g., psychological and physical violence and neglect from parents, sexual abuse, witnessing interparental violence and bullying; Bigras et al., 2017a, 2017b). As these experiences rarely occur in isolation, assessing their cumulative impact is crucial (Hughes et al., 2017). Indeed, estimates suggest that 30% to 67% of individuals from the general population have endured CCT (Bakhos et al., 2024; Stoltenborgh et al., 2015). Additionally, past CCT is strongly associated with the emergence of multiple complex and persistent repercussions in adulthood including clinical symptoms of depression (Sahle et al., 2021). For CCT survivors, parenting a toddler may be particularly challenging as it may reawaken the psychological wounds left by the CCT, increasing vulnerability to developing PDS (McLaughlin et al., 2010).

While the association between CCT and PDS is documented in mothers welcoming a newborn (e.g., Choi et al., 2019; Fu et al., 2024), only one study examined this link in parents raising toddlers (Spieker et al., 2018). This study found that CCT was associated with PDS in parents ($n = 123$) involved with child welfare services (Spieker et al., 2018). Given that this study relied on a sample composed mainly of mothers facing specific psychosocial vulnerabilities, further research is needed to determine whether this association holds in a larger sample of fathers from the general population. Although no study examined the relationship between CCT and PDS in fathers of toddlers, three studies documented the link between CCT and psychological adjustment of fathers during the perinatal period. Skjothaug et al. (2014) found that fathers with higher CCT scores reported more depressive and anxious symptoms during their partner's pregnancy but did not examine PDS in the postpartum period. Doi et al. (2022) found that fathers with CCT showed higher scores of PDS compared to those without CCT in the week following delivery, but this association did not remain significant at 3 months postpartum. Finally, Godbout et al. (2023) found positive associations of comparable strength between CCT and PDS in both mothers and fathers of infants aged 0–6 months. Since fathers do not undergo pregnancy-related hormonal changes, these parallel associations suggest that CCT may not be linked to PDS through pregnancy-specific factors, but rather through mechanisms tied to survivors' reduced capacity to adjust to parenting stressors (e.g., gender role stress, emotion dysregulation; Godbout et al., 2023). Given the lack of research on the CCT–PDS link beyond infancy in fathers, exploring mechanisms involved in this link would provide valuable insights for developing trauma-sensitive prevention programs tailored to fathers' experience of PDS.

1.2. Theoretical framework

To uncover mechanisms underlying the association between CCT and PDS, we draw on theories exploring masculinity's role in men's psychopathological symptoms. The Dynamic Model of Masculinity and Men's Psychopathology (Berke et al., 2018), inspired by Pleck's (1995) Gender Role Strain Paradigm, postulates that masculinity-related constructs (e.g., stress related to masculine norms) contribute to men's mental health outcomes (e.g., PDS), in part through emotion dysregulation (i.e., difficulties coping with distressing emotions without using maladaptive coping strategies; Briere and Runtz, 2002). This model describes that masculine socialization (i.e., a process through which boys learn which emotions and gender roles are culturally valued for men) heightens vulnerability to emotion regulation difficulties across the lifespan (Berke et al., 2018). In adulthood, perceived failures to meet masculine ideals may trigger emotional responses (e.g., stress) that men struggle to regulate (Reidy et al., 2018). Since deviating from masculine gender roles is often met with social sanctions (e.g., lost of status, disapproval), men may become hypervigilant to threats to their masculinity (Pleck, 1995). This masculinity-related stress increases reliance on maladaptive strategies such as emotional suppression, contributing to emotion dysregulation and subsequent negative mental health outcomes like PDS (Arrindell, 2005; Berke et al., 2018; Yeung et al., 2015).

Although all men may experience masculinity-related stress, male CCT survivors are particularly vulnerable, since the very concept of victimization directly conflicts with masculine ideals of strength, dominance, and emotional control (Lisak, 1995; Rosen and Martin, 1998; Slegh et al., 2021). One masculinity-related stress that is particularly relevant for fathers' PDS is masculine gender role stress (MGRS; Álvarez-García et al., 2024).

1.3. MGRS's role in the CCT − PDS Link

MGRS refers to the distress arising when men perceive themselves as not able to cope with the culturally approved masculine traits associated with a specific gender role (Eisler and Skidmore, 1987). Five categories of situations may elicit MGRS: physical inadequacy, tender emotional expression, intellectual inferiority, performance failure, and subordination to women. In the context of raising toddlers, fathers may encounter several of these situations, especially when navigating conflicting sets of expectations about their fatherhood role. On one hand, traditional masculine norms dictate that fathers should fulfill their role by being “the man of the house,” providing economically, showing emotional control, dominance and leadership (Chhabra et al., 2022; Eddy et al., 2019). On the other hand, contemporary fatherhood ideals increasingly emphasize emotional sensitivity, and active involvement in caregiving and child-rearing (Petts et al., 2018). For many men, reconciling these competing demands can generate stress and uncertainty about how to fulfill their fatherhood role (Gervais et al., 2021; Petts et al., 2018). This difficulty in meeting both traditional and contemporary expectations may increase MGRS. In their qualitative study, Gervais et al. (2021) reported that many fathers in early parenthood felt torn between fulfilling the provider role and being emotionally present for their child. Moreover, perceived failure to conform to culturally valued masculine traits can be experienced as threats to masculine identity, leading to heightened MGRS. Such experiences may be particularly destabilizing for fathers with CCT, who often lack healthy models of fathering and may struggle to define their role in alignment with their

values and needs (Gervais et al., 2021).

These tensions may elicit a specific form of MGRS: the stress linked to perceived subordination to women, particularly in the caregiving role. This form of MGRS refers to the distress arising from perceived competitive threat from women (Chhabra et al., 2020; Eisler and Skidmore, 1987). This may be especially salient in early fatherhood, when female partners are often seen as more naturally competent caregivers (Gervais et al., 2021). Similarly, another study reported that fathers often described being perceived by relatives and healthcare professionals primarily as supporters of the mother, rather than as a full-fledged parent (Eddy et al., 2019). In this context, male survivors of CCT may feel less capable than their partners, and their perceived secondary role within the family may trigger MGRS and reawaken feelings of powerlessness and inadequacy rooted in past trauma.

Empirical findings have identified MGRS as one of the most important risk factors predicting PDS in fathers (Álvarez-García et al., 2024). Notably, a recent meta-analysis found that men with MGRS were over four times more likely to experience postpartum PDS (Chhabra et al., 2020). More specifically, Buist et al. (2003) reported that fathers' MGRS related to subordination to women was linked to increased PDS during pregnancy, but this link did not remain significant postpartum. To our knowledge, only one study has investigated the association between childhood interpersonal trauma and MGRS. Juan et al. (2017) found that MGRS related to situations of tender emotional expression indirectly explained the link between sexual trauma experienced in the military and depression. However, the focus of this study on male veterans and on a specific trauma type limits its generalizability to fathers in the general population. Moreover, emotion dysregulation has been consistently linked to both masculinity-related stress and depressive symptoms, suggesting it may serve as a key mechanism through which MGRS contributes to PDS (Berke et al., 2016). Finally, none of these studies have tested whether MGRS connects CCT to PDS via a potential sequential association with emotion dysregulation. This gap highlights the need to examine emotion dysregulation as a potential mechanism in the CCT–PDS pathway.

1.4. Emotion dysregulation's role in the CCT − PDS Link

Drawing on the Dynamic Model of Masculinity and Men's Psychopathology (Berke et al., 2018), we postulated that the link between CCT and PDS is not only explained through MGRS, but also through emotion dysregulation. Previous studies have largely documented an association between CCT and emotion dysregulation, possibly due to the limited opportunities for survivors to develop effective emotion regulation capacities (Dvir et al., 2014; Liu et al., 2015; Zreik et al., 2025). Emotion dysregulation may be a particularly relevant risk factor for fathers' PDS, especially during emotionally intense periods such as toddlerhood.

Among women, several studies have observed an indirect link between CCT and depressive symptomatology through emotion dysregulation in non-parenting contexts (Abravanel and Sinha, 2015; Fasciano et al., 2021; Ye et al., 2023). In the postpartum period, mothers' CCT has been associated with increased risk for PDS (Chen et al., 2023) and with higher levels of emotion dysregulation (Dinni and Ardiyanti, 2020; Li et al., 2024). Although no studies have directly examined the role of emotion dysregulation in the CCT − PDS link, existing research offers converging evidence. For instance, neuroimaging data have linked CCT to alterations in corticolimbic structures implicated in stress regulation and emotional processing (Teicher and Samson, 2016). Similarly, England-Mason et al. (2017, 2022) found that women reporting CCT and greater emotion dysregulation displayed blunted cortisol responses and lower oxytocin reactivity, which may increase vulnerability to PDS.

Although these studies support the idea that CCT may increase mothers' PDS through emotion dysregulation, this indirect pathway remains unexplored in fathers. However, prior research findings suggest that during toddlerhood, fathers reported using fewer coping strategies than mothers, had lower perceived parental competence, and often struggled as they perceived their toddler to have a stronger attachment to the mother (Kwon et al., 2013). Moreover, drawing from a distinct dataset from this study ([PROJECT NAME BLINDED-FOR-REVIEW]), (Rassart et al., 2022) found that CCT was associated with greater parenting stress through emotion dysregulation in both mothers and fathers of a newborn. Although their study focused on parenting stress rather than depressive symptoms, results highlight the relevance of emotion dysregulation as a mechanism linking CCT to parental psychological difficulties (Rassart et al., 2022). This raises the possibility that during toddlerhood, a similar pathway may potentially operate in fathers: CCT may be linked to greater emotion dysregulation, which could contribute to increased PDS.

Moreover, emotion dysregulation may also potentially emerge in response to MGRS. Men experiencing MGRS often conform rigidly to traditional gender roles, which may limit their use of adaptive regulation strategies (e.g., discussing parenting stress with a partner), thereby increasing their vulnerability to PDS (Álvarez-García et al., 2024; Chhabra et al., 2022). While this potential sequential pathway remains unexplored, prior research has linked masculinity-related stress to emotion dysregulation (Cunningham et al., 2020; Jakupcak, 2003; Lebeau et al., 2024). However, no study has yet examined the specific association between MGRS and emotion dysregulation or tested a pathway linking CCT to PDS through both MGRS and emotion dysregulation in fathers.

Finally, several other sociodemographic factors, including age, personal income, education level, relationship status, and relationship duration, have been associated with fathers' MGRS related to subordination to women, emotion dysregulation or PDS in prior studies (Baldy et al., 2023; Chhabra et al., 2020). To accurately assess the contribution of CCT, MGRS and emotion dysregulation to PDS, it is therefore important to control for these sociodemographic factors.

2. Objectives and hypotheses

The current cross-sectional study addresses these gaps by examining whether MGRS, more specifically related to subordination to women, and emotion dysregulation are sequential mechanisms in the indirect associations between CCT and PDS among fathers parenting toddlers. Specifically, we hypothesized that fathers' CCT would be positively linked to higher rates of PDS through 1) MGRS, 2) emotion dysregulation, and 3) sequentially through MGRS and emotion dysregulation. Participants' age, personal income (Can$), education level, relationship status, and relationship duration were included as covariates, as prior research indicates that sociodemographic factors may be related to men's MGRS, emotion dysregulation, and PDS.

3. Method

3.1. Procedure

The current cross-sectional study is part of a larger longitudinal research project where different-gender couples welcoming a new child were recruited in collaboration with the Quebec Parental Insurance Plan (i.e., a universal provincial income replacement program for parents on parental leave). Through this program, the research team received randomly selected contact information (names, phone numbers, and email addresses) of parents across the province. Research assistants contacted both parents via email and phone to confirm eligibility and invite them to participate in the project. The inclusion criteria were being aged 18 years or older; being parents of an infant (0–6 months); being in relationship with the other parent; being fluent in written and spoken French or English; and that the child had been carried by one of the two parents. The project was presented as a confidential online survey exploring the psychological and relational well-being of parental couples. At each measurement point, parents used a personalized link to complete a 45-min online questionnaire on the Qualtrics platform. Each

participant received a $20 gift card per wave of participation. In the present study, data for CCT were collected at the first measurement time (child aged between 0 and 6 months) while data for all other variables were collected when the child was aged between 28 and 40 months (in average 30 months later). The participation rate at Time 1 was 55.73%. The attrition rate 30 months later was 9.15%, corresponding to a participation rate of 90.85%. The study was approved by the research ethics committee of the first author's institution.

3.2. Participants

Table 1 presents the detailed sociodemographic characteristics of the sample at the first measurement time. The final sample consisted of 719 fathers from different-gender couples who recently welcomed a new child. Fathers were aged 22 to 59 years (M = 34.7; SD = 5.9). Most fathers (97.5%) were still in a relationship with the mother of their child at the first completion of the questionnaires. Among fathers who were separated, most were single (63.2%,) and had shared/equal custody of their child (64.3%). The average relationship duration was 9.14 years (SD = 4.0) and ranged from 3 to 23 years. Participants were all fathers of a toddler of 28 to 40 months of age (M = 30.0 months; SD = 1.9). Fathers reported having an average of 2.04 children (SD = 0.9).

3.3. Measures

Participants provided sociodemographic information, including: age (1 = 18–29 years, 2 = 30–39 years, 3 = 40–59 years); personal income (1 = low: 0–39,000, 2 = medium: 40,000–79,000, 3 = high: 80,000 or more); education level (1 = primary or secondary, 2 = college/cegep, 3 = university undergraduate degree, 4 = university master's or doctorate degree); relationship status with the mother of their child (1 = in a romantic or marital relationship, 2 = separated or divorced); and relationship duration (1 = 1–5 years, 2 = 6–10 years, 3 = 11–15 years, 4 = 16–23 years).

CCT was measured using the 24-item Childhood Cumulative Trauma Questionnaire (CCTQ; Bigras, Daspe, et al., 2017). This questionnaire assessed 8 types of childhood interpersonal trauma: parental physical abuse, parental psychological abuse, parental physical neglect, parental psychological neglect, sexual abuse, peer bullying, and exposure to interparental psychological and physical violence. Childhood sexual abuse was based on Canada's Criminal Code and defined as any sexual contact before age 18 with someone in a position of authority, someone at least five years older, or as any unwanted sexual contact with a peer. For other traumas, participants reported the frequency of each experience on a Likert scale from 0 ("*never*") to 6 ("*every day*") during a typical year before age 18. Responses were dichotomized to reflect the presence or absence of each trauma, and the total CCT score (ranging from 0 to 8 traumas) was obtained by summing these dichotomous scores. The CCTQ has shown strong internal consistency in previous studies (α = 0.90; Bigras et al., 2017a, 2017b), and in this sample (α = 0.91).

MGRS was measured with the five-item *Subordination to Women* subscale from the Abbreviated Masculine Gender Role Stress Scale (MGRS-15, Swartout et al., 2015). This subscale evaluates men's anticipated stress in situations where they may feel outperformed or dominated by women (e.g., "letting a woman control the situation"). This subscale is intended to capture situational stress related to perceived subordination rather than misogynistic or hostile attitudes toward women. Although the original response format was a 6-point Likert scale, a 5-point Likert scale ranging from 0 ("*not at all stressful*") to 4 ("*extremely stressful*") was used in this study. This adaptation provided a neutral midpoint, which allowed participants to indicate ambivalence or neutrality, which is not possible with an even-numbered scale. This adjustment aimed to reduce participant burden and facilitate their engagement. The five items were first summed to yield a total score ranging from 0 to 20, with higher values indicating greater MGRS. Due to limited variability observed in the responses, this total score was then dichotomized such that any nonzero score (≥ 1) reflected the presence of MGRS, whereas a score of 0 indicated its absence. This approach ensured that dichotomization was applied to the overall construct rather than to individual items. This approach also facilitated the detection of elevated MGRS in a community-based sample, where overall variability was limited. Internal consistency in our sample was satisfactory (α = 0.85), comparable to that observed in previous studies using dichotomous scoring (α = 0.86; Merino et al., 2021).

Emotion dysregulation was measured using the nine-item Affect

Table 1
Sample's Sociodemographic Characteristics (n = 719).

Characteristics	%	n
Sexual Orientation (n = 622)		
Heterosexual	96.6	622
Bisexual or pansexual	1.1	7
Heteroflexible	0.8	5
Questionning or prefer not to answer	1.6	10
Country of birth (n = 716)		
Canada	82.5	591
United States	0.1	1
Western Europe	4.7	34
Eastern Europe	1.5	11
Africa	3.9	28
Asia	1.0	7
Middle East	1.4	10
Latin America / South America	2.4	17
Other	2.4	17
Ethnicity (n = 636)		
White (e.g., European descent)	83.5	531
Black (e.g., African, African Canadian, Afro-Caribbean descent)	4.4	28
Latin American (Hispanic or Latin American descent)	2.0	13
Asian	1.3	8
Other (e.g., Indigenous)	8.1	33
Primary language (n = 711)		
French	81.9	582
English	6.6	47
Spanish	1.4	10
Other (e.g., bilingual)	10.1	72
Education level (n = 716)		
Primary/Elementary school	2.8	20
Secondary school	17.2	123
CEGEP/ College of general and professional education	40.6	291
University, undergraduate degree (B.A. or certificate)	23.7	170
University, master, doctoral or other professional degrees (e.g., dentistry)	15.6	112
Fathers' personal yearly income (CAN$)		
$00,000–19,999	2.0	14
$20,000–39,999	7.5	53
$40,000–59,999	22.1	157
$60,000–79,999	28.3	201
$80,000–99,999	19.3	137
$100,000 and more	20.7	147
Did not provide this information		10
Relationship status if still with the other parent		
Common-law relationship or cohabitation	69.9	486
Married	29.5	205
Other	0.6	4
Duration of relationship in years		
1–5	20.0	138
6–10	47.5	328
11–15	25.3	175
16–20	6.7	46
21–25	0.6	4
Number of children (n = 689)		
One	27.0	184
Two	51.1	348
Three	16.2	110
Four	4.1	28
Five or more	1.6	11
Gender of the child		
Boy	47.7	74
Girl	52.3	81

Note. n = number of participants. % = percentage of sample. These characteristics were collected during the first measurement time.

Dysregulation subscale of the Inventory of Altered Self-Capacities (IASC; Bigras and Godbout, 2020). This subscale evaluates mood swings, difficulty managing anger and other intense emotions, and difficulties moving out of dysphoric states without resorting to harmful externalizing or avoidance behaviors (specific examples omitted due to copyright restrictions). Participants rated the frequency of these emotional experiences on a 5-point Likert scale ranging from 1 ("*never*") to 5 ("*really often*"). The total score was calculated by averaging the responses, with higher scores reflecting greater emotion dysregulation. This total score was then transformed into a T score, where a score greater than 70 indicates a clinically significant level of emotion dysregulation (Briere and Runtz, 2002). This measure has demonstrated strong internal consistency in previous research (α = 0.89; Briere and Runtz, 2002) and in this study (α = 0.92).

PDS were measured using the 10-item Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987), a validated instrument for use with parents of children beyond the postpartum period (Golding et al., 2024; Thorpe, 1993). The EPDS focuses on core emotional and cognitive symptoms of depression and intentionally excludes somatic symptoms (e.g., fatigue, sleep disturbance), which are common in parents and not specific to depression. Participants indicated the frequency of symptoms over the past seven days on a 4-point Likert scale ranging from 0 ("*No, not at all*") to 3 ("*Yes, very often*"). Total scores are calculated by summing the items and range from 0 to 30, with scores of 13 or above typically indicating clinical-level depressive symptoms (Mann and Evans, 2015). Previous studies reported satisfactory strong internal consistency for fathers (α = 0.82; Matthey et al., 2001), as did the current study (α = 0.88 for fathers).

3.4. Data analysis strategy

Descriptive analyses and correlations were conducted using SPSS 29 (SPSS, IBM Corp, 2022). To test our model, a path analysis was performed in Mplus (version 8; Muthén and Muthén, 2015). Missing data were addressed using the full information maximum likelihood estimation. Logarithmic transformations and the robust maximum likelihood estimator were used to account for variables deviating from normal distribution. Indirect paths were tested using 5000 bootstrap samples to calculate 95% confidence intervals (CIs) (Preacher & Hayes, 2008), with significance determined if the CI excluded zero (Caron, 2018). Model fit was assessed using five indices: a nonsignificant chi-square, a comparative fit index (CFI) and a Tucker-Lewis index (TLI) of 0.95 or above, a root-mean-square error of approximation (RMSEA) below 0.06, and a standardized root-mean-square residual (SRMR) below 0.08 (Kline, 2016).

4. Results

4.1. Results from preliminary analyses

Table 2 presents Pearson correlations among the primary variables, along with descriptive statistics for all main variables. While CCT was normally distributed, emotion dysregulation and PDS were positively skewed. To address this, base-10 logarithmic transformations were applied to these two variables prior to analysis. Table 3 presents rates of childhood interpersonal trauma. In total 8.1% (n = 58) of fathers reported clinically relevant levels of PDS, while 18% (n = 130) reported elevated levels of emotion dysregulation, including 4% with problematic and 14% with clinically significant levels. There was 35.6% of men that reported the presence of MGRS related to subordination to women. Participants reported on average, 2.5 types of interpersonal trauma (SD = 1.9) and 64% (n = 452) reported CCT (i.e., two or more types). Regarding covariates, father's age was correlated with CCT (r = 0.14, p < .001), but not with the other main variables. Income and education were not correlated with any of the main variables. Relationship status was correlated with MGRS (r = 0.08, p < .05), emotion dysregulation (r = 0.11, p < .01), and PDS (r = 0.12, p < .01), but not with CCT. Relationship duration was significantly correlated with CCT (r = 0.08, p < .05), but not with the other main variables.

Table 2
Descriptive Statistics and Spearman Correlations for Cumulative Childhood Trauma, Emotion Dysregulation, Masculine Gender Role Stress (yes/no), and Parental Depressive Symptoms (n = 719).

Variables	1	2	3	4
1. Cumulative Childhood Trauma	–	0.11**	0.18***	0.16***
2. Masculine Gender Role Stress		–	0.17***	0.24***
3. Emotion Dysregulation			–	0.64***
4. Parental Depressive Symptoms				–
Mean	2.5	0.4	13.6	5.2
Standard Deviation	1.9	0.5	5.8	4.9
Variances	3.6	0.2	34.0	24.0
Minimum	0.0	0.0	9.0	00.0
Maximum	8.0	1.00	43.0	29.0

Note. n = number of participants; CCT = cumulative childhood trauma; MDS = masculine gender role stress; ** = p > .01; *** = p < .001.; The total score of Parental Depressive Symptoms was used for correlations and descriptive statistics.

Table 3
Participants' Rate of Childhood Interpersonal Trauma (n = 719).

Variables	%	*n*
Childhood Interpersonal Trauma		
Psychological neglect	66.6	471
Bullying	45.9	324
Physical violence	43.7	309
Witnessing interparental psychological violence	34.2	242
Psychological violence	26.9	190
Physical neglect	15.6	110
Child sexual abuse	7.4	52
Witnessing interparental physical violence	5.9	42
Number of Childhood Trauma experienced		
0	16.5	117
1	19.5	138
2	20.9	148
3	14.4	102
4	13.6	96
5	6.8	49
6	5.0	35
7	2.5	18
8	0.8	5

4.2. Results from the path analysis

Fig. 1 presents the path analysis model testing all hypotheses of the current study. The initial saturated model left no degrees of freedom. To obtain model fit and parsimony, we trimmed non-significant paths. Specifically, we excluded the path between CCT and PDS; the paths linking MGRS to age, income, education, and relationship duration; the paths linking emotion dysregulation to age, income, education, and relationship duration; and finally, the paths linking PDS to age, income, education, relationship status, and relationship duration. This resulting model indicated satisfactory fit: *χ2 (14) = 7.769, p = .901; CFI/TLI = 1.000/ 1.000; RMSEA = 0.000, 90% CI [0.00, 0.016]; SRMR = 0.013.* As shown in Fig. 1, CCT was significantly associated with MGRS, which was associated with greater emotion dysregulation, which was then associated with increased PDS. Four indirect effects emerged: 1) More CCT was indirectly related to more PDS through MGRS (β = 0.02, p = .01, 95% CI [0.006, 0.032]); 2) CCT was indirectly related to higher PDS through more emotion dysregulation (β = 0.10, p < .001, 95% CI [0.065, 0.149]); 3) CCT was indirectly associated with PDS through the potential sequential roles of MGRS and emotion dysregulation (β = 0.01, p = .02, 95% CI [0.003, 0.019]); 4) Results also showed that more CCT was indirectly related to more emotion dysregulation through MGRS (β =

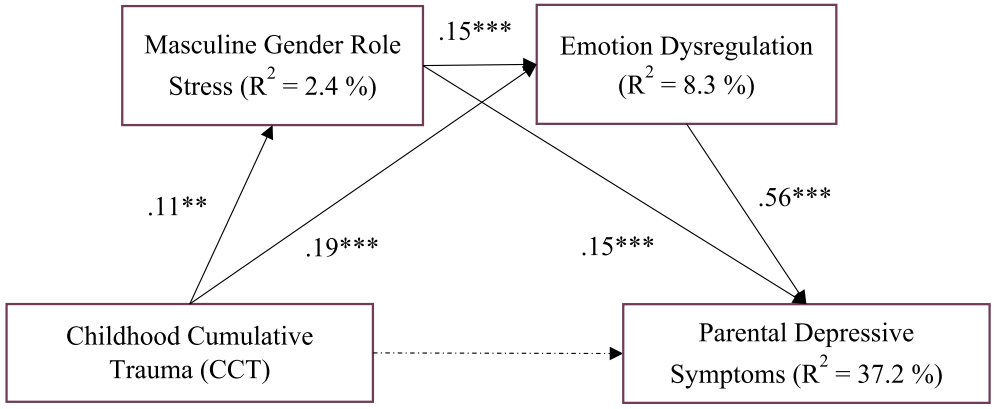

Fig. 1. Direct Links Between Cumulative Childhood Trauma and Parental Depressive Symptoms Through Masculine Gender Role Stress and Emotion Dysregulation.

0.01, $p = .02$, 95% CI [0.005, 0.033]). Overall, the model accounted for 37.2% of the variance in PDS.

5. Discussion

This study examined the combined and independent roles of MGRS and emotion dysregulation in the link between CCT and PDS among fathers of toddlers. Findings showed that CCT was indirectly related to PDS through a pathway involving MGRS and emotion dysregulation, with the model accounting for over a third of the variance in PDS. Both MGRS and emotion dysregulation also showed significant individual indirect effects. These results contribute to understanding how CCT relates to PDS and offer new insight into Berke et al.'s (2018) model by highlighting MGRS and emotion dysregulation as key mechanisms.

5.1. The Role of MGRS

As expected, the association between CCT and PDS through MGRS elicited by situations of subordination to women was significant, although the proportion of variance in MGRS explained by CCT was small. When emotion dysregulation was included in the model, both MGRS and emotion dysregulation showed significant indirect associations with PDS. These findings suggest that MGRS and emotion dysregulation may play distinct but complementary roles in the association between CCT and PDS. Conceptually, MGRS can be understood as a masculinity-related stressor that heightens the demands for emotion regulation, whereas emotion dysregulation reflects the affective and behavioral difficulties through which this stress becomes clinically relevant.

In the context of early fatherhood, where emotional attunement and nurturance are increasingly expected, men struggling with conflicting traditional and contemporary fatherhood ideals may rely more heavily on rigid masculine norms to navigate fatherhood. Yet, this strong reliance may heighten MGRS, especially in situations where they feel subordinate to their female partners. For CCT survivors, these experiences may amplify the risk of PDS. This finding is consistent with Berke et al.'s (2018) model, which proposes that gender role stress can disrupt emotional functioning and increase psychological vulnerability.

Importantly, this pathway should be interpreted in light of the current sociocultural climate. In Western societies, recent years have seen a resurgence of masculinist and populist movements in reaction to gender equality politics that challenge traditional roles of men as husbands, fathers and providers (Turner, 2024). Amplified through social media platforms, these movements promote rigid and hierarchical gender roles that may reinforce MGRS among vulnerable men, particularly those grappling with masculine identity or mental health difficulties, such as CCT survivors (Roberts et al., 2025). While many men reject traditional masculine norms (Oliffe et al., 2019), the ongoing pressure to appear emotionally stoic or dominant (Maryn et al., 2024) may undermine emotional functioning and help-seeking, both of which are crucial to coping with the challenges of toddlerhood.

Finally, this finding is consistent with previous studies identifying MGRS as an important risk factor for fathers' PDS (Álvarez-García et al., 2024; Chhabra et al., 2022). While earlier research has largely examined MGRS in isolation, the present study extends this body of work by demonstrating that MGRS may act in conjunction with emotion dysregulation, thereby clarifying a potential pathway through which CCT contributes to PDS. Interestingly, while Buist et al. (2003) found that MGRS related to subordination predicted depression during pregnancy but not in the postpartum period, our findings indicate that this form of MGRS remains relevant into toddlerhood, particularly for CCT survivors. This divergence possibly reflects shifts in role expectations and stressors during the period of raising toddlers.

5.2. The Role of emotion dysregulation

The prominent role of emotion dysregulation in linking CCT to PDS can be interpreted in the context of toddlerhood, where fathers face increasing tantrums and oppositional behaviors (Kwon et al., 2013). CCT survivors often report enhanced emotional reactivity, poorer understanding of their own and their child's mental states and greater nonacceptance of distress (England-Mason et al., 2022; Ye et al., 2023; Zreik et al., 2025). In this context, toddlers' outbursts may trigger trauma-related responses (e.g., frustrations, helplessness, guilt) that survivors struggle to regulate (Spieker et al., 2018). CCT survivors may respond to their toddlers' distress in an emotionally dysregulated manner (e.g., harshness, withdrawal). Their dysregulated reactions may fuel self-criticism, shame, and perceived failure as a parent, all of which contribute to elevated PDS.

This finding is consistent with those of earlier studies that documented the role of emotion dysregulation in the link between CCT and depressive symptoms in women and non-parenting contexts (Abravanel and Sinha, 2015; Fasciano et al., 2021; Ye et al., 2023) but goes further by showing this indirect effect among fathers of toddlers. By focusing specifically on fathers of toddlers, our study addresses a notable gap in the literature and highlights how unresolved trauma may shape fathers' emotional functioning, which affects their parenting experiences through increased vulnerability to PDS.

5.3. The sequential role of MGRS And emotion dysregulation

As expected, CCT was associated with higher MGRS which, in turn, was linked to greater emotion dysregulation and, subsequently, to elevated PDS in fathers of toddlers. The model explained a third of the variance in PDS, which represents a large effect size. This finding may be understood in the context of early fatherhood demands. Parenting

requires emotionally attuned responses, which may be harder to provide during the "terrible twos" phase. Indeed, as toddlers test boundaries, seek more autonomy and have increasing tantrums and frustrations (Kwon et al., 2013), fathers with CCT may have a heightened propensity to experience MGRS around subordination to women, which may exacerbate their own emotion dysregulation, ultimately increasing their PDS. This finding supports the core sequence proposed by Berke et al.'s (2018) model, in which early socialization experiences serve as inputs that heighten men's sensitivity to masculinity-related stressors, which then increase emotion-regulation demands and, ultimately, the risk of mental health difficulties.

Our findings align with those of Juan et al. (2017) whereby the dimension of MGRS related to situations of tender emotional expression indirectly explained the link between military sexual trauma and depression. While they examined a different MGRS facet, our findings are complementary. In early fatherhood, especially with toddlers, caregiving involves nurturing behaviors and verbal soothing that have been historically seen as more "feminine". For some male CCT survivors, these behaviors may evoke discomfort or perceived inadequacy, reflecting internalized masculine norms that equate emotional vulnerability with weakness. These internalized norms may stem from early interpersonal traumas in which parents, relatives, or peers both perpetrated abuse and reinforced rigid masculine ideals. Consequently, CCT survivors may be more likely to overinvest in traditional masculinity to counter perceived threats to their identity. In this context, stress around appearing subordinate to women may undermine emotional expressiveness, which further amplify emotion dysregulation and increase vulnerability to PDS. Finally, our results align with those of Paredes and Parchment (2021) who observed that among Latino fathers, more egalitarian gender role attitudes were associated with fewer PDS, with coping skills explaining PDS. Such results, along with those of the present study, reinforce the notion that while gender role distress matters, it is the capacity to regulate this distress that is the most crucial determinant for paternal PDS.

5.4. Limitations: Future directions

This study has several limitations. First, while its measures are anchored in theory, the cross-sectional design of the study precludes conclusions about causality and temporal sequencing. In an attempt to address this limitation, we tested two alternative orderings: a first model in which CCT is linked to increased PDS, which is associated with more emotion dysregulation, which is ultimately linked to greater MGRS, and a second alternative model in which emotion dysregulation precedes MGRS instead of the opposite. Results revealed similar model fit across models, suggesting that the data are compatible with multiple plausible orderings. We retained the original hypothesized model because MGRS reflects a cognitive appraisal process, whereby men evaluate situations in light of gendered expectations (e.g., perceived subordination or failure to meet masculine role standards), whereas the measure of emotion dysregulation used in this study captures affective and behavioral manifestations (e.g., mood swings, anger outbursts, and maladaptive externalizing behaviors). Nevertheless, because alternative models showed similarly adequate fit, longitudinal research is needed to clarify the directionality among CCT, MGRS, emotion dysregulation, and PDS, and to track the evolution of PDS over time. Second, reliance on self-report measures may introduce bias. While the online format offered convenience and privacy, it may have excluded more vulnerable fathers. Future studies should consider incorporating observational data or reports from partners or children for a more comprehensive assessment of fathers' PDS, emotion dysregulation, and gender role stress. Third, the sample (Quebec fathers of toddlers) limits generalizability. Replication in more culturally diverse settings, especially where traditional masculinity norms are more prevalent (Gervais et al., 2021), and dyadic designs including partners, would enhance contextual understanding. Finally, the low proportion of men reporting high MGRS may have constrained the detection of stronger effects. Recruiting more diverse samples with greater variability in gender role stress is recommended.

6. Conclusion

This study underscores the importance of understanding PDS through a trauma-informed lens. Our findings point to MGRS and emotion dysregulation as promising intervention targets for supporting the adjustment of fathers who are CCT survivors. Integrating these insights into clinical practice and public health policy is essential. Routine screening for PDS, MGRS, and emotion dysregulation should be implemented in parenting programs and perinatal health services. Trauma-sensitive interventions that address masculinity-related stress through psychoeducation and emotion-regulation skills training could reduce distress and improve parenting outcomes (Baldoni and Giannotti, 2020). Finally, a shift toward father-inclusive and gender-informed care models, alongside broader destigmatization efforts, is needed to ensure that fathers, especially those with CCT, feel seen, supported, and equipped to meet the emotional demands of early fatherhood.

CRediT authorship contribution statement

Rose Lebeau: Writing – review & editing, Writing – original draft, Formal analysis, Conceptualization. **Alison Paradis:** Writing – review & editing, Validation, Supervision, Software, Resources, Project administration, Funding acquisition, Data curation. **Catherine M. Herba:** Writing – review & editing, Validation. **Martine Hébert:** Writing – review & editing, Validation. **Natacha Godbout:** Writing – review & editing, Validation, Supervision, Software, Resources, Project administration, Methodology, Funding acquisition, Data curation.

Declaration of Generative AI and AI-assisted technologies in the writing process

During the preparation of this work the author(s) used ChatGPT to catch and edit grammatical mistakes and receive suggestions to improve the readability and language of the manuscript. ChatGPT did not write any draft or text, and was only used for revision purposes (e.g., grammar, spelling, syntax). The tool was employed to generate suggestions and alternatives, which were then critically evaluated, edited, and integrated by the authors. At no point was any content copied directly without modification. All intellectual decisions, interpretations, and final wording remain entirely our own. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the article.

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Declaration of competing interest

The authors have no conflict of interest.

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