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Youth-Recalled Parenting Strategies and Later Positive Screens for Depression and Anxiety

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Highlights

What are the main findings?

- As recalled by adolescents, the most common disciplinary strategies used by parents or caregivers when they were 10 years or younger were: "Told this child to stop", "Raised their voice, scolded or yelled", and "Talked to this child to explain what they did wrong".
- Ten parenting strategies recalled by youth were related to later positive screens for depression, anxiety symptoms, or both.

What are the implications of the main findings?

- Future research should study these parenting strategies in the context of parenting and mental health interventions and education.

Abstract

Background/Objectives: The literature examining longitudinal associations between specific, actionable parenting strategies in childhood and later mental health outcomes is inconsistent and understudied. Research on parenting 'strategies' has often focused on harsh parenting practices rather than more normative practices. The purpose of the study was to examine the prevalence of youth-recalled parenting strategies experienced during early and middle childhood and how these experiences were associated with positive screens of depression and anxiety in adolescence and emerging adulthood. Methods: Data were from the multi-wave longitudinal Well-Being and Experiences (WE) Study of youth in Manitoba, Canada (Wave 5: $n = 507$, 50.6% retention rate, 18 to 23 years old, 58% female respondents). At Wave 1, respondents (aged 14 to 17 years) were asked to retrospectively recall which of the 21 parenting strategies any parent or caregiver used when they were 10 years or younger. Positive screens of depression and anxiety were measured combined for Waves 3 through 5 using the Patient Health Questionnaire (PHQ-9) and the Generalised Anxiety Disorder (GAD-7) scales. Results: The most prevalent youth-recalled parenting strategies were: "Told this child to stop", "Raised their voice, scolded or yelled", and "Talked to this child to explain what they did wrong". Ten of the recalled parenting strategies assessed were associated with screening positive for depression and/or anxiety after adjusting for sociodemographic covariates (three protective factors; seven risk factors). Conclusions: The findings identify parenting strategies that should further be tested in parenting education and intervention research focusing on parenting and mental health outcomes for youth.

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1. Introduction

Globally, it is estimated that the peak age of onset for generalised anxiety disorder is 15.5 years and 19.5 years for depressive disorders [1], making childhood and adolescence important developmental periods for prevention of mental health problems. Primary prevention and health promotion for youth often focus on families, parents, and caregivers given their central role in child development [2]. Parenting interventions have been found to be effective in reducing internalising problems and mental disorders in childhood, with some reviews and meta-analyses reporting long-term effects [3–5].

The relationship between parenting and child development has been the subject of research for over 85 years, with a predominant focus on parenting dimensions and styles [6–8]. Parenting dimensions and styles can be defined as cross-situational attitudes, behaviours, and approaches that shape the relationships between parents and their children, as well as the environment in which parenting occurs [6–8]. Parenting styles (e.g., authoritative, authoritarian, and permissive) and dimensions (e.g., warmth, control, autonomy granting) have been associated with internalising symptoms and depression, while the literature is less strong for associations with anxiety [7,9–12]. An important critique of research on parenting dimensions and styles is their broad nature, which limits their direct applicability in parenting programmes and clinical settings and is not easily understood by parents to put into practice [13].

Parenting practices (sometimes referred to as behaviours or strategies) are constructs distinct from parenting dimensions and styles and have been described as parent–child interactions that are goal-directed for socialisation [8]. To consider the complexity of the parenting literature, further distinctions could also be made. There are broad parenting behaviours to reach goals such as breastfeeding, laughing with the child, engaging in activities together, etc. [7,14]. There are also practices that are more directly aimed at encouraging or discouraging child behaviours, sometimes referred to as 'discipline' and/or 'punishment'. In the current study, the word 'discipline' is used to describe parenting strategies to teach and guide the child [15]. The word 'punishment' is used to describe the introduction of something unpleasant or the removal of something pleasant in response to a behaviour [15].

In the past few decades, there is emerging literature examining specific parenting practices and their associations with children's mental health. In the current study, the terms parenting practices and parenting strategies will be used interchangeably. Research on parenting 'strategies' has often focused on harsh parenting practices. For example, physical punishment has been consistently associated with poor outcomes, including internalising and mental health problems [16]. Harsh verbal punishment (e.g., yelling, shouting, screaming) has also been associated with internalising problems [17]. There are fewer studies examining less 'harsh' parenting practices. More 'normative' strategies with significant associations to anxiety and/or emotional disorders include: time-outs or sending the child to their room, grounding or keeping the child in, and shaming the child [18,19]. One longitudinal study examined harsh and positive parenting strategies at various time points and their associations with depression and anxiety at ages 12 to 13 years [14]. The authors found that associations between parenting strategies and depression and anxiety differed by age and sex [14]. Positive parenting (a measure combining five parenting strategies) at age 6/7 years was associated with decreased symptoms of depression/anxiety at age 12 to 13 years for the whole sample. However, associations at other ages were only significant

among boys, with unexpected findings: both harsh parenting (a measure combining four parenting strategies) and positive parenting at ages 8/9 and 10/11 were associated with increased symptoms of depression and anxiety. Further research is required to examine specific parenting strategies used to encourage and discourage children's behaviours and their associations with depression and anxiety, particularly longitudinally.

Longitudinal research is key to understanding the development of mental health problems and the long-term impact of parenting on their children's mental health. Several systematic reviews and meta-analyses [9–11,20,21] have examined longitudinal associations between parenting and depression, anxiety, and internalising problems and reported mixed findings. One study described the literature as understudied [20]. There are several reasons as to why mixed findings may have been noted. These reviews and meta-analyses confound multiple parenting constructs such as parenting dimensions, parenting styles, parenting practices, abuse, and inter-parental conflict [9,11,20,21]. Varying measurement tools and timing (e.g., developmental period of adoption of parenting practices, when mental health outcomes are assessed, and the interval between the two) may also contribute to inconsistent findings. The informant for both parenting and mental health outcomes also differs across studies. In the parenting literature, self-reports (by parents or youth) have typically been used to study parenting style; however, parenting practices have often been assessed through observational methods [13]. In longitudinal studies, while youth have been asked to report on parenting in adolescence [11], youth voices have largely been absent in reporting parenting they experienced during their early to middle childhood [22–24].

While there are limitations to these systematic reviews and meta-analyses of longitudinal research, the results are nonetheless important to consider. Some parenting constructs were associated with higher symptoms of internalising symptoms only (harsh control, psychological control, neglectful parenting), depression only (withdrawal, aversiveness, over-involvement, lack of warmth), or both (authoritarian parenting, aversiveness, inter-parental conflict) [9–11]. Other parenting constructs have been linked to lower internalising symptoms and depression, including parental warmth, behavioural control, monitoring, and autonomy granting [10,11]. The literature is less strong for associations with anxiety; however, dimensions such as less warmth, over-involvement, and aversiveness have sound evidence linking these types of parenting constructs to higher levels of anxiety [11]. While these reviews describe the wealth of studies examining associations between parenting (in various developmental periods) and depression, anxiety, and/or internalising symptoms in adolescence, less is known about emerging adulthood [11,20].

To address some of the limitations in the literature, the objectives of the current study were to: (a) determine the prevalence of youth-recalled parenting strategies they experienced before age 10 and (b) examine how these strategies were associated with later positive screens of depression and anxiety among youth (adolescents and young adults) at ages 18 to 23 years.

2. Materials and Methods

The current study adopted a longitudinal multi-wave survey design to examine the associations between parenting strategies recalled by youth and positive screens of depression and anxiety. The Health Research Ethics Board at the University of Manitoba granted ethics approval for this study.

2.1. Data and Sample

Data are from the longitudinal Well-Being and Experiences (WE) Study in Manitoba, Canada. Wave 1 of the WE Study recruited 1000 parent–child (ages 14 to 17 years old) dyads using a combination of random digital dialling (21%) and convenience sampling (79%) [25].

The current study used data collected from the youth surveys (with the exception of parent-reported household income, marital status, and education as covariates). At Wave 1 (July 2017 to October 2018), once informed written consent was obtained from both parents and youth, they completed independent surveys at a research facility in separate rooms. Additional details about WE Study methodology have been published elsewhere [25–27]. Youth whose parents had given permission for their child to be re-contacted for future research were invited to participate in subsequent waves of data collection. In subsequent waves (Wave 2: October 2019 to February 2020, Wave 3: October 2020 to January 2021, Wave 4: October 2021 to January 2022, and Wave 5: October 2022 to January 2023), informed written consent was obtained from youth only. Data for Waves 2 through 5 were collected using online surveys. In the current analyses, the sample is limited to youth who participated in all five waves of data collection (n = 507, 50.6% retention rate). Sociodemographic differences between respondents who participated in Wave 5 and those who were lost to follow-up are provided in Supplementary Table S1. By Wave 5, youth were aged 18 to 23 years old.

2.2. Measures

At Wave 1, youth were asked, "When you were younger (age 10 years and younger), please indicate what your parent(s) (or step-parents, adoptive parents, or people who raise you) and adult caregivers (e.g., grandparent, babysitter, other adult family member) did when you would break the rules, do things you were not supposed to do, or misbehave, or when they were encouraging good behaviour. Some strategies may have been used only a few times and others more often and may have changed over time. Please mark all that they used with you." Respondents were presented with a list of 21 parenting strategies, developed for the purpose of this study, and given the options to respond "Yes", "No", "I don't know", or "No response". Respondents who indicated "I don't know" and "No response" were excluded from analyses.

At Waves 3 through 5, screens for depression and anxiety were measured using the reliable and validated 9-item Patient Health Questionnaire (PHQ-9) and the 7-item Generalised Anxiety Disorder (GAD-7), respectively [28–30]. Both scales have also been recently studied and validated among adolescent samples [31,32]. Respondents were asked to indicate, on a 4-point ordinal scale ranging from Not at all (0) to Nearly every day (3), how often in the past two weeks they were bothered by the experiences listed on the PHQ-9 and GAD-7. For each scale, a summed score of 10 or higher at any of the three waves of data collection was coded as a positive screen, as per published recommendations [28–31,33]. Partial scales were included in the analyses if the missing variables would not have changed the way respondents would have been coded (i.e., screening positive/yes vs. negative/no). For example, if a respondent scored 0 on seven of the PHQ-9 questions but was missing on two, even with the highest assigned score for those two questions (three each, totaling six), that respondent could not meet the threshold of 10, and therefore, they would be coded as negative (no). However, if a respondent's score was a total of seven on eight of the PHQ-9 questions but was missing for the final question, their score on that final question could result in either a positive or negative screen; therefore, that respondent would be coded as missing on the depression screen and excluded from analyses. Three waves of data were combined to maximise statistical power. The following variables (collected at Wave1) were included as covariates in the analyses: adolescent sex (male, female), parent-reported household income, parental education, and parental marital status.

2.3. Statistical Analyses

Descriptive statistics were computed to determine the prevalence of recalled parenting strategies and sample demographic variables. Logistic regressions, unadjusted and adjusted

for the covariates, were then computed to examine the associations between individual recalled parenting strategies and positive screens for (a) depression and (b) anxiety. Complete case analyses were conducted, meaning respondents with missing data on certain variables were excluded from the specific analysis, not excluded from the overall cohort. Parenting strategies required a minimum cell size of five when cross -tabulated with each outcome variable to be included in the regression analyses.

3. Results

Table 1 presents the prevalence of positive depression and anxiety screens, youth-recalled parenting strategies and key demographic variables in the sample. The sample was 58% female, with an average age of 15.3 years at Wave 1 and 20.0 years at Wave 5. The household income category with the greatest prevalence (39.4%) was $50,000 to $99,999. The most prevalent parental education level was completion of a university graduate degree. For the majority of respondents (82.4%), parents reported being married or in a common-law relationship at Wave 1. Positive screens were 58.3% for depression and 46.8% for anxiety. The most prevalent recalled parenting strategies were: "Told you to stop" (98.8%), "Raised their voice, scolded or yelled at you" (89.7%), and "Talked to you to explain what you did wrong" (89.2%).

Table 1. Sample prevalence of depression and anxiety screens, youth-recalled parenting, and key demographic variables.

	Analytic Sample (*n*)	**% (*n*)**
Positive Depression Screen, Yes	501	58.3 (292)
Positive Anxiety Screen, Yes	500	46.8 (234)
Youth-Reported Parenting Strategies, Yes		
Told you to stop	492	98.8 (486)
Raised their voice, scolded or yelled at you	464	89.7 (436)
Talked to you to explain what you did wrong	483	89.2 (431)
Talked to you to explain what you should have done	486	86.1 (415)
Sent you to your room	444	83.3 (410)
Praised you for good behaviour	465	83.2 (387)
Took away TV or electronics (computer, phone, tablet, etc.)	451	80.1 (391)
Showed, demonstrated or role-played the right thing to do	487	66.4 (295)
Gave you a time-out in a chair or corner	473	64.5 (311)
Gave rewards for good behaviour	444	63.6 (301)
Took away allowance, toys or privileges	482	55.7 (268)
Grounded you (unable to go out with friends or missed events)	492	54.3 (264)
Praised you for stopping the misbehaviour	471	49.6 (220)
Spanked your bottom (bum) with his/her hand	486	46.9 (221)
Tried to make you feel ashamed or guilty	488	37.4 (171)
Gave you extra chores as a consequence	481	35.0 (167)
Held back affection by acting cold or not giving hugs and kisses	477	21.3 (96)
Ignored you	483	15.2 (72)
Gave money or rewards for stopping the misbehaviour	482	10.5 (51)
Ignored the problem, did nothing	500	8.4 (39)
Sent you away to another family member or somewhere else	457	2.4 (12)
Sex (Wave 1)	505	
Male		42.0 (212)
Female		58.0 (293)

Table 1. *Cont.*

	Analytic Sample (*n*)	% (*n*)
Parent-reported Household Income (Wave 1)	485	
$49,999 or less		14.9 (72)
$50,000 to $99,999		39.4 (191)
$100,000 to $149,999		22.7 (110)
$150,000 or more		23.1 (112)
Parental Education (Wave 1)	505	
High school completion or less		10.9 (55)
Some community college or university		11.7 (59)
Completed trade school or community college		23.0 (116)
Completed a university undergraduate degree		26.9 (136)
Completed a university graduate degree		27.5 (139)
Parental Marital Status (Wave 1)	505	
Married or common-law		82.4 (416)
Separated, divorced, or widowed		14.9 (75)
Never married		2.8 (14)
Age (Wave 1), Mean in years (SE)	505	15.3 (0.05)
Age (Wave 5), Mean in years (SE)	507	20.0 (0.06)

SE = standard error.

The associations between recalled parenting strategies and positive screens of depression and anxiety are presented in Table 2. Two parenting strategies were excluded from the regression analyses because they did not meet the minimum cell size requirement, including: "Told you to stop" and "Sent you away to another family member or somewhere else". The following recalled parenting strategies were significantly associated with increased odds of screening positive for depression after adjusting for sociodemographic covariates: "Raised their voice, scolded or yelled at you", "Grounded you (unable to go out with friends or missed events)", "Took away allowance, toys or privileges", and "Gave you extra chores as a consequence". Youth who recalled a parent or caregiver praising them for good behaviour when they were 10 years or younger had significantly decreased odds of screening positive for depression.

The following recalled parenting strategies were associated with significantly increased odds of screening positive for anxiety in Waves 3 to 5 after adjusting for sociodemographic covariates: "Ignored the problem, did nothing", "Ignored you", "Grounded you (unable to go out with friends or missed events)", and "Tried to make you feel ashamed or guilty". Several recalled parenting strategies were associated with significantly decreased odds of screening positive for anxiety after adjusting for covariates, including: "Praised you for stopping the misbehaviour", "Praised you for good behaviour", and "Gave rewards for good behaviour".

Table 2. Associations between youth-recalled parenting strategies and positive screens for depression and anxiety.

	Depression						Anxiety					
Parenting Strategies	**Analysis Sample (*n*)**	**OR (95% CI)**	***p*-Value**	**Analysis Sample (*n*)**	**AOR (95% CI)**	***p*-Value**	**Analysis Sample (*n*)**	**OR (95% CI)**	***p*-Value**	**Analysis Sample (*n*)**	**AOR (95% CI)**	***p*-Value**
Ignored the problem, did nothing	459	1.49 (0.74, 2.97)	0.263	439	1.32 (0.63, 2.73)	0.459	457	**2.34 (1.17, 4.70) ***	0.017	437	**2.16 (1.03, 4.55) ***	0.042
Ignored the child	471	1.52 (0.89, 2.57)	0.123	450	1.35 (0.76, 2.38)	0.305	469	**2.39 (1.41, 4.05) *****	0.001	448	**2.17 (1.23, 3.82) ****	0.008
Raised their voice, scolded or yelled	481	**1.94 (1.07, 3.49) ***	0.029	458	**1.89 (1.00, 3.57) ***	0.049	479	0.96 (0.54, 1.73)	0.903	456	0.82 (0.43, 1.55)	0.534
Praised this child for stopping the misbehaviour	439	0.73 (0.50, 1.06)	0.102	416	0.70 (0.47, 1.06)	0.090	438	**0.56 (0.38, 0.82) ****	0.003	415	**0.51 (0.33, 0.77) ****	0.002
Praised this child for good behaviour	460	**0.50 (0.29, 0.85) ***	0.011	438	**0.47 (0.26, 0.85) ***	0.013	458	**0.49 (0.29, 0.81) ****	0.005	436	**0.46 (0.26, 0.80) ****	0.006
Held back affection by acting cold or not giving hugs and kisses	446	**1.61 (1.00, 2.59) ***	0.049	424	1.59 (0.96, 2.63)	0.075	444	**1.66 (1.05, 2.63) ***	0.030	422	1.55 (0.95, 2.56)	0.082
Gave money or rewards for stopping the misbehaviour	482	1.00 (0.55, 1.80)	0.988	459	1.00 (0.54, 1.88)	0.991	480	0.91 (0.51, 1.64)	0.764	457	0.92 (0.49, 1.72)	0.790
Gave rewards for good behaviour	468	0.78 (0.53, 1.15)	0.214	447	0.73 (0.49, 1.11)	0.140	466	**0.63 (0.43, 0.91) ***	0.015	445	**0.53 (0.35, 0.81) ****	0.003
Showed, demonstrated or role-played the right thing to do	438	0.72 (0.48, 1.08)	0.113	416	0.71 (0.46, 1.11)	0.138	437	0.75 (0.50, 1.11)	0.154	415	0.76 (0.49, 1.18)	0.223
Gave a time-out in a chair or corner	476	0.80 (0.55, 1.18)	0.258	453	0.79 (0.52, 1.19)	0.257	475	0.76 (0.52, 1.11)	0.153	452	0.78 (0.52, 1.17)	0.229
Sent this child to their room	486	1.07 (0.66, 1.74)	0.789	463	1.14 (0.68, 1.92)	0.621	485	1.46 (0.90, 2.37)	0.129	462	1.52 (0.89, 2.58)	0.124
Spanked the child's bottom (bum) with hand	465	1.17 (0.81, 1.70)	0.397	443	1.16 (0.77, 1.73)	0.478	464	0.97 (0.67, 1.40)	0.876	442	0.95 (0.64, 1.42)	0.819
Grounded the child (unable to go out with friends or missed events)	480	**1.50 (1.04, 2.16) ***	0.031	457	**1.64 (1.10, 2.42) ***	0.014	479	1.35 (0.94, 1.94)	0.105	456	**1.49 (1.00, 2.22) ***	0.050
Took away TV or electronics (computer, phone, tablet, etc.)	482	1.37 (0.87, 2.15)	0.168	459	1.52 (0.94, 2.48)	0.089	481	1.09 (0.69, 1.70)	0.720	458	1.22 (0.75, 1.99)	0.417
Took away allowance, toys or privileges	475	**1.74 (1.20, 2.51) ****	0.004	453	**1.86 (1.25, 2.77) ****	0.002	474	1.23 (0.85, 1.77)	0.268	452	1.31 (0.88, 1.95)	0.190
Gave extra chores as a consequence	471	**1.58 (1.07, 2.33) ***	0.023	449	**1.63 (1.07, 2.47) ***	0.023	470	1.40 (0.96, 2.05)	0.080	448	1.42 (0.94, 2.15)	0.092
Talked to this child to explain what they did wrong	477	0.64 (0.35, 1.17)	0.146	454	0.74 (0.38, 1.42)	0.359	476	**0.54 (0.30, 0.97) ***	0.040	453	0.63 (0.33, 1.20)	0.157
Talked to this child to explain what they should have done	476	0.59 (0.34, 1.02)	0.058	454	0.58 (0.32, 1.05)	0.070	475	0.60 (0.35, 1.02)	0.060	453	0.63 (0.36, 1.13)	0.120
Tried to make the child feel ashamed or guilty	451	1.39 (0.94, 2.06)	0.096	432	1.27 (0.84, 1.93)	0.254	450	**1.72 (1.17, 2.54) ****	0.006	431	**1.62 (1.07, 2.46) ***	0.023

Note. The reference category for all parenting strategies is "no". OR = odds ratio, CI = confidence interval, AOR = adjusted odds ratio. Adjusted odds ratio is adjusted for adolescent sex, parent-reported household income, parent-reported marital status, and parental education at Wave 1. * $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$. Statistically significant associations are also bolded.

4. Discussion

The current study contributed to the literature in several unique ways. First, it is one of few longitudinal studies that examine specific parenting strategies used to encourage and discourage children's behaviours and their associations with positive screens for depression and anxiety. Second, it is one of the very few longitudinal studies that have asked youth to report (even retrospectively) on parenting strategies experienced during the childhood period (10 years and younger). Third, this longitudinal study examined outcomes of depression and anxiety screens in late adolescence/early adulthood—a period when depression and anxiety are often first detected [1,34].

The four recalled parenting strategies statistically associated with greater odds of screening positive for depression after adjusting for covariates were consistent with a punitive approach to parenting: "Raised their voice, scolded or yelled at you"; "Grounded you"; "Took away allowance, toys or privileges"; and "Gave extra chores as a consequence". These strategies are often perceived as 'less harmful', with some considered 'positive' disciplinary practices and alternatives to physical forms of punishment [35]. However, the current findings suggest that these recalled strategies are associated with long-term negative outcomes and are consistent with other findings in the literature. For instance, a nationally representative study in the United Kingdom identified that using a high level of non-physical, emotional forms of punishment, including sending the child to their room, grounding the child, and shouting or yelling at them, was associated with psychiatric disorders, including emotional disorders such as depression and anxiety, among adolescents aged 11 to 15 years [19]. Another study found harsh parenting at ages 8/9 and 10/11 to be associated with increased symptoms of depression and anxiety at ages 12/13 but only among boys [14]. Similar to the findings of the current study, harsh parenting included raising their voice, scolding, or yelling; however, it also included variables that were found to be non-significant in the current study (physical punishment) or were not studied in the same way (i.e., calmly discussing the problem—reverse coded, explaining different ways of behaving—reverse coded) [14]. Differences could be explained by variations in how the variables were measured: for example, examining anxiety and depression separately vs. combined, examining parenting strategies individually vs. combined. The examination of different developmental periods may also play a role in the differences noted.

Four recalled parenting strategies were significantly associated with increased odds of screening positive for anxiety after adjusting for covariates, including: ignoring the problem/doing nothing; ignoring the child; grounding the child; and trying to make the child feel ashamed or guilty. While there are few studies examining specific parenting strategies to compare these results to, one study found shaming to be associated with increased symptoms of anxiety among children [18]. Comparing the findings of the current study to the broader parenting literature, parallels can be made between these strategies and the dimension of psychological control, defined as insidious manipulative practices—such as guilt-induction and love withdrawal– that infringe on a child's psychological experiences and development [11,20,36,37]. The findings in the current study have similarities and differences when compared to the literature. In one study, psychological control was significantly associated with internalising problems, which included both depression and anxiety; however, in the current study, these recalled strategies are only associated with a positive anxiety screen [37]. In systematic reviews, psychological control is either grouped into larger parenting styles or studied as independent dimensions (e.g., psychological control and withdrawal) (11,20). Most consistent with the findings in the current study, one review found withdrawal (defined as lack of involvement, interest, emotional support and reciprocity) to be associated with anxiety (in cross-sectional studies) but not depression (retrospective studies) [11].

The remaining three recalled parenting strategies significantly associated with anxiety screens after adjustments were protective: "Praised you for stopping the misbehaviour", "Praised you for good behaviour" (both anxiety and depression), and "Gave rewards for good behaviour". The majority of these involve giving positive reinforcement (e.g., praise) for good behaviour or when parent-perceived misbehaviour is stopped. While positive parenting strategies have, in large part, been consistently associated with lower rates of mental health problems, much of the research is summarised under the parenting dimensions of parental warmth, acceptance, and sensitivity [11,20,21]. The findings of the current study are similar to previous work that found high levels of rewarding strategies and low punishment (both physical and non-physical) to be associated with an absence of psychiatric disorders among 11- to 15-year-olds [19]. However, another study that examined associations between positive parenting and depression and anxiety, combined, found mixed findings depending on age and sex [14]. In the study, positive parenting was defined as caregivers: (1) praising the child; (2) focusing positive attention on the child; (3) laughing with the child; (4) doing something special that the child enjoys; and (5) engaging in activities with the child (14). Similar to the current study, among the whole sample, positive parenting at age 6/7 was associated with decreased symptoms of depression and anxiety [14]. However, among boys at ages 8/9 and 10/11, the associations were significant but in the opposite direction [14]. Differences could be explained by variations in how and when variables were measured. For example, instead of examining individual strategies, positive parenting combined five practices, including some that were less directly aimed at encouraging or discouraging child behaviours (i.e., discipline).

Only two recalled parenting practices were significantly associated with positive screens for both depression and anxiety after adjusting for sociodemographic covariates: "Praising you for good behaviour" (decreased odds) and "Grounded you (unable to go out with friends or missed events)" (increased odds). Some studies have suggested a transdiagnostic approach to studying, preventing, and treating anxiety and depression because of the similarities across the disorders [11,20,38,39]. However, in the current findings, there appears to be a distinct pattern of parenting strategies being significantly associated with depression *or* anxiety screens, not both (with few exceptions), although differences were not statistically tested. These findings suggest that perhaps parenting interventions to prevent or address mental health concerns could explore targeting certain strategies for anxiety and others for depression. Ultimately, targeting any of these 10 strategies should be tested in intervention research focusing on mental health among youth.

The findings of the current study should be considered within the context of several limitations. First, causation cannot be inferred. Second, there is a possibility of reciprocal or reverse associations where parenting strategies may be influenced by a child's mental health. The current study does not identify the onset of youth's depression and anxiety symptoms and whether they may have preceded, co-occurred, or started after the use of the studied parenting strategies. It is possible that a child's early emotional or behavioural difficulties would influence caregivers' responses and predict later symptoms of depression and anxiety. Nonetheless, the longitudinal nature of the study is advantageous compared to cross-sectional studies in the literature. Future longitudinal studies using larger datasets should examine these associations by including parenting strategies and their association with depression and anxiety prospectively. This limitation also relates to the third limitation: youth-recalled parenting practices prior to age 10 years may be subject to recall bias. Fourth, the parenting strategies were not from a validated measure. The measure does not capture important context as to when and how such strategies were used. It is possible that associations between parenting strategies and symptoms of depression and anxiety differ depending on contextual factors not measured in the current study. However,

a distinction and strength that it may bring to the literature, particularly when thinking about the design of parenting programmes or interventions, is the fact that these strategies were specific, actionable, and modifiable. Nonetheless, future research may benefit from more detailed assessments such as frequency, timing, caregiver identity, severity, context, consistency, and predictability. Fifth, it is important to note that these strategies may co-occur (see correlation matrix included in Supplementary Table S2). As such, it is important to consider that the results of the regressions may not be independent effects. Sixth, given the nature of the sample, the recruitment methods, and non-random attrition (see Supplementary Table S1), the findings may not be generalizable to other populations and, particularly, among populations outside of Canada or Western contexts. Seventh, to maximise statistical power, the positive depression and anxiety screening outcomes were combined for Waves 3 through 5, which does not distinguish temporary fluctuations in symptoms over time. Eighth, respondents were asked to identify their sex, not their gender identity. Future research on associations between specific parenting strategies and mental health may benefit from examining sex or gender differences. Finally, it is also important to note that several other factors, not measured or adjusted for in this study, could also account for the noted relationships in this study. Mental health outcomes were assessed after the onset of the COVID-19 pandemic, which may have impacted the mental health of youth, although results of a systematic review and meta-analysis on changes in mental health during the pandemic remain inconclusive [40]. The prevalence of parenting strategies reported differs from another study using the same data because the current study limited the sample to youth who participated in all five waves of data collection [41].

5. Conclusions

For decades, research and advice in parenting books have predominantly been focused on how to modify children's behaviours to encourage child compliance and obedience, or achieve parental goals [42]. Research examining the long-term impact of parenting practices on children's mental health is important in helping shift the focus to include children as part of the narrative. The current study further adds to this movement by asking youth to recall the parenting strategies they perceived to have experienced when they were 10 years or younger. Children and youth have a right to have their voices heard, to share their experiences and their impacts, and to be full participants in attaining their best possible health [43]. Parents and other caregivers can also benefit from gaining a greater understanding of which strategies could be in children's best interests and how they can be associated with youth's health outcomes over time. The current findings warrant further study and should be tested in intervention research but may point to recommendations to refrain from the following strategies: ignoring the problem; ignoring the child; scolding or yelling; grounding the child; taking away allowance, toys, or privileges; giving extra chores as a consequence; and trying to make the child feel ashamed or guilty. Instead, further research, including mental health and parenting interventions, may wish to further explore the positive parenting strategies associated with decreased odds of positive depression/anxiety symptoms screens identified in the current study. Caregivers should be encouraged to guide and teach children by building their capacity to learn pro-social norms and behaviours and develop self-regulation, including recognising and celebrating children's positive behaviours. Changes in parenting practices and behaviours can be challenging; the findings from this study can help inform further studies on parenting programmes to support caregivers in learning new positive strategies and supporting them during this shift.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/children13121649/s1, Figure S1: Well-Being and Experiences Study Waves 1 to 5 Participant Flow Diagram; Table S1: Differences in Demographic Characteristics of Respondents Included and Excluded from Wave 5 Sample; Table S2: Pairwise Correlation Matrix for Youth-Recalled Parenting Strategies; Table S3: Prevalence of Youth Depression and Anxiety Screens by Wave.

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Abbreviations

The following abbreviations are used in this manuscript:

WE	Well-Being and Experiences
PHQ-9	Patient Health Questionnaire
GAD-7	Generalised Anxiety Disorder
SE	Standard Error
OR	Odds Ratio
AOR	Adjusted Odds Ratio

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