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Parents' beliefs about actions they can take to prevent depressive disorders in young people: results from an Australian national survey

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Dear Editor

Mental health literacy has been defined as 'knowledge and beliefs about mental disorders which aid their recognition, management or prevention' (Jorm *et al.* 1997). Although international research in the past decade has increased our understanding of the public's knowledge and beliefs about the recognition and management of mental illness (e.g. Angermeyer & Matschinger, 2005; Wang *et al.* 2007; Kermode *et al.* 2009), there remains a dearth of understanding about the public's knowledge and beliefs about prevention. To date we are only aware of two studies that have examined this: a national survey of the German public aged 14 and over (Schomerus *et al.* 2008) and a national survey of Australian youth aged 12–25 years and health professionals (Jorm *et al.* 2010). However, despite substantial evidence about the importance of parenting as risk or protective factors in youth depression (Restifo & Bögels, 2009), growing evidence suggesting that interventions to promote effective parenting can prevent youth depression (Sandler *et al.* 2011), and public attributions of childhood depression to the way the child was raised (Perry *et al.* 2007), little is known about parents' knowledge and beliefs about their role in prevention. This is especially important given that the incidence of depression peaks in the first decades of life and is accompanied by serious long-term sequelae (Kessler, 2009).

In view of the limited research on this topic, we included questions about prevention as part of an Australian national survey of mental health literacy with youths and their parents. In particular, we examined parents' beliefs about three sets of parenting behaviors that evidence to date indicates are preventive against youth depression: (1) showing affection to their child, often conceptualized as parental warmth (e.g. see reviews by McLeod *et al.* 2007; Restifo & Bögels, 2009); (2) not keeping the child under tight control at all times, conceptualized as overcontrol (e.g. see reviews by McLeod *et al.* 2007); and (3) avoiding parental conflict in front of the child, sometimes also conceptualized as marital discord (e.g. see reviews by Cummings & Davies, 2002; Restifo & Bögels, 2009). To explore potential correlates of parental beliefs which can inform health promotion efforts, we also examined parental socio-demographic characteristics and their exposure to mental health problems and mental health information. Since child characteristics such as age and sex may influence parental beliefs (e.g. more affection for daughters *v.* more control for sons), we examined these variables as well.

Methods

Participants

In 2006, a national computer-assisted telephone survey was carried out via random digit dialing on a sample of 1873 young Australians aged 12–25 years (61.5% response rate). Of the 1466 youth respondents who lived with at least one parent, 982 (67%) had a parent who also completed a parent interview, 68% of whom were mothers (see Jorm *et al.* 2007 for more details). This paper focuses on parent respondents only.

Survey interview

The national survey was conducted to investigate mental health literacy in Australian youth and their parents, and was based around a vignette of a young person ('John'/'Jenny') with a mental disorder. Respondents were randomly assigned to one of four vignettes: depression, depression with alcohol misuse, social phobia or psychosis. Parents were read a

* Address for correspondence: Dr Marie Yap, Orygen Youth Health Research Centre, Locked Bag 10, Parkville, Victoria 3052, Australia.
(Email: m.yap@unimelb.edu.au)

vignette of the same gender and age group as their child, and then asked a series of questions based on the vignette (see Jorm *et al.* 2007 for more details). This paper focuses only on the two depression vignettes because these have known parenting risk factors.

Prevention beliefs

Parents were asked: 'The next few questions are about things a parent might do to reduce the risk of (John/Jenny) developing the problem in the first place. If a parent did the following, do you think it would reduce the risk of their child developing a problem like (John's/Jenny's)?'. They were then read nine sets of parenting behaviors, which included three of interest in this paper due to their evidence base: 'showing the child lots of affection', 'keeping the child under tight control at all times', and 'parents not having arguments in front of their child'. Possible responses were 'Yes', 'No', 'Depends', 'Don't know' and 'Refused'. For the first and third behaviors, responses were coded 'Yes' = 1 and 'No' = 0. Responses for the second behavior were reverse coded such that 'No' = 1 and 'Yes' = 0. Hence all responses of '1' indicate that the parent has accurate beliefs about prevention based on extant evidence. To avoid ambiguity in interpretation of findings, we excluded respondents who did not provide a 'Yes' or 'No' response in analyses examining the correlates of these beliefs.

Correlates of prevention beliefs

Child sex and age information were collected as part of the youth interview. During the parent interview, parents provided socio-demographic information including their sex, age, highest level of education completed, and whether they spoke a language other than English (LOTE) at home. Parental age was obtained as 20–29, 30–39, 40–49, 50–59, 60 or over or refused. For simplicity, the parental age variable was coded as 40–49 years (given that it was the most prevalent group), below 40 or above 50. Parental education was coded as tertiary *v.* other, consistent with past research (Griffiths *et al.* 2008).

In addition, parents were asked about their exposure to mental disorders in themselves or someone close to them: 'Have you ever had a problem similar to (John's/Jenny's)?' and 'Has anyone in your family or close circle of friends ever had a problem similar to (John's/Jenny's)?'.

Finally, parents were asked about their exposure to mental health information: 'Have you seen, read, or heard any advertisements about mental health problems in the past 12 months?'; 'Have you seen, read, or heard any news stories about mental health problems in the past 12 months?'; 'Have you heard of *beyondblue: the national depression initiative*'?; 'In the past 12 months, have you received any information about mental health problems from your child's school?'; and 'In the past 12 months, have you received any information about mental health problems at your workplace?'. For the latter two questions, responses of parents who did not have a child at school or who were not in the workforce were coded as 'No' to maximize the sample size. All responses were coded 'Yes' = 1 and 'No' = 0.

Statistical analysis

Descriptive data on parent respondents' prevention beliefs and all correlates were analyzed using frequencies and percent frequencies. We then conducted three binary logistic regressions to explore whether the 14 abovementioned correlates predicted the accuracy of parental beliefs about each of the three parenting behaviors relative to research evidence. In these regressions, the prevention belief was the dichotomous-dependent variable, and all 14 correlates were entered simultaneously as predictors. All predictors were dichotomous except for parent age, which had three groups; and child age in years, which was a continuous variable. The $p < 0.01$ significance level was used to reduce Type 1 error given the large number of predictors examined. All analyses were performed using PASW version 18.

Ethics

Oral consent was obtained before commencing the interview. This study was approved by the University of Melbourne Human Research Ethics Committee.

Results

Of the 982 parents who completed the interview, one refused to provide their age and one refused to indicate whether they speak a LOTE at home. Hence they were excluded from further analyses, which gave a remaining sample of 980. However, given that we excluded respondents who did not respond with 'Yes' or 'No' to the prevention beliefs by list-wise deletion, the total sample for regression analyses predicting the affection, overcontrol, and parental conflict beliefs were 944, 911, and 928, respectively.

As summarized in Table 1, most parents correctly endorsed the parenting behaviors, especially showing lots of affection, although a significant minority did not believe that avoiding overcontrol and minimizing a child's exposure to parental conflict will reduce their risk of developing depressive disorders.

Table 1. *Descriptive data for parent prevention beliefs and correlates of interest: number and percent of parent sample (N = 980)*

Variable	Number of respondents	% Sample
Prevention beliefs (endorsement as preventive)		
Showing the child lots of affection		
Yes	898	92
No	46	5
Depends	16	2
Don't know	20	2
Keeping the child under tight control at all times		
No	803	82
Yes	108	11
Depends	50	5
Don't know	19	2
Parents not having arguments in front of their child		
Yes	780	80
No	148	15
Depends	33	3
Don't know	18	2
Refused	1	0
Potential predictors—child characteristics		
Child sex		
Male	466	48
Female	514	52
*Child age group (in years)**		
12–17	639	65
18–25	341	35
Potential predictors–parent characteristics		
Parent sex		
Male	311	32
Female	669	68
Parent age group (in years)		
40–49	552	56
Below 40	114	12
50 and over	314	32
Highest level of education		
Tertiary (Bachelor or Post-graduate)	297	30
Other (Primary/Secondary/TAFE/Diploma)	683	70
Does not speak a LOTE *at home*	852	87
Vignette		
Depression	504	51
Depression with alcohol misuse	476	49
Ever had mental health problem	252	26
Knows someone who ever had mental health problem	600	61
Received mental health information from child's school	114	12
Received mental health information from workplace	248	25
Exposed to news stories on mental health problems	639	65
Exposed to advertisements on mental health problems	724	74
Aware of beyondblue	554	57

*Child age is displayed here as two separate categories for ease of description, but child age in years is included as a continuous variable in regression analyses.
LOTE = language other than English.

As shown in Tables 2 and 3, four of the 14 correlates examined significantly predicted the affection and overcontrol beliefs. Parents who had received mental health information at work were more likely to correctly endorse the belief that showing the child lots of affection is preventive. Parents with tertiary education and those who speak English only at home, as well as those who had been exposed to

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Table 2. *Summary of logistic regression analysis predicting the correct endorsement of 'showing the child lots of affection' as preventative (N = 944)*

Predictors	Odds ratio	99% CI	*p*
Vignette (depression with alcohol abuse)	2.04	0.87, 4.80	0.031
Child sex (male)	0.75	0.33, 1.70	0.372
Child age (in years)	0.95	0.83, 1.10	0.398
Parent sex (male)	2.09	0.68, 6.43	0.091
Parent age group (in years)			0.470
Below 40 *v.* 40–49	0.66	0.21, 2.11	0.357
Above 50 *v.* 40–49	1.33	0.46, 3.84	0.487
Highest level of education (tertiary *v.* non-tertiary)	1.96	0.65, 5.92	0.115
Does not speak a LOTE	1.29	0.37, 4.43	0.600
Knows someone who ever had mental health problem	0.69	0.25, 1.94	0.362
Ever had mental health problem	0.45	0.19, 1.07	0.018
Received mental health information from child's school	2.77	0.40, 19.33	0.176
Received mental health information from workplace	0.72	0.28, 1.82	0.359
Exposed to news stories on mental health problems	0.71	0.28, 1.78	0.332
Exposed to advertisements on mental health problems	**2.84**	**1.21, 6.69**	**0.002**
Aware of beyondblue	0.83	0.35, 1.99	0.592

Nagelkerke $R^2 = 0.13$.
Significant effects ($p < 0.01$) are presented in bold. LOTE = language other than English.

mental health advertising, were more likely to correctly endorse that not exerting overcontrol is preventive. None of the correlates significantly predicted the belief about avoiding parental conflict.

Discussion

This study found that most parents believe that specific types of parenting behaviors have a role to play in preventing depression in young people. Parent education and LOTE status, as well as their exposure to mental health information through advertising and at their workplace, predicted some of these beliefs. There were no predictors of the belief about parental conflict, perhaps reflecting the fact that this has not been the target of depression awareness campaigns in Australia.

Overall, most parents believe that showing their child lots of affection is protective against depression

Table 3. *Summary of logistic regression analysis predicting the correct endorsement of not 'keeping the child under tight control at all times' as preventative (N = 911)*

Predictors	Odds ratio	99% CI	*p*
Vignette (depression with alcohol abuse)	0.78	0.45, 1.36	0.257
Child sex (male)	1.15	0.66, 2.02	0.508
Child age (in years)	1.10	0.99, 1.22	0.022
Parent sex (male)	0.91	0.49, 1.68	0.694
Parent age group (in years)			0.506
Below 40 *v.* 40–49	1.43	0.58, 3.52	0.307
Above 50 *v.* 40–49	1.21	0.59, 2.45	0.497
Highest level of education (tertiary *v.* non-tertiary)	**2.37**	**1.15, 4.90**	**0.002**
Does not speak a LOTE	**2.73**	**1.38, 5.42**	**< 0.001**
Knows someone who ever had mental health problem	1.01	0.54, 1.88	0.961
Ever had mental health problem	1.06	0.53, 2.11	0.828
Received mental health information from child's school	0.59	0.26, 1.35	0.101
Received mental health information from workplace	**2.36**	**1.01, 5.48**	**0.009**
Exposed to news stories on mental health problems	0.74	0.41, 1.35	0.195
Exposed to advertisements on mental health problems	1.29	0.69, 2.41	0.294
Aware of beyondblue	1.67	0.92, 3.04	0.028

Nagelkerke $R^2 = 0.13$.
Significant effects ($p < 0.01$) are presented in bold. LOTE = language other than English.

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in young people, although there is a minority who did not believe this, despite the strong evidence backing up its role in prevention of depression (Cummings & Davies, 2002; McLeod *et al.* 2007; Restifo & Bögels, 2009). Of greater concern are the findings that almost one in five parents did not believe in the important preventive role of not exerting tight control over their child at all times, and of parents not having arguments in front of their child. Interestingly, there were more parents indicating 'Depends' for the overcontrol belief than the other two. In line with the proposal raised in a recent review of family processes in the development of youth depression (Restifo & Bögels, 2009), these views may reflect parents' belief that the broader social context (e.g. living in a high-crime neighborhood) and child characteristics (e.g. child temperament and peer selection) may be important in determining how much parental control is necessary for their child's safety and wellbeing. Nonetheless, taken together with the clear evidence that these parenting behaviors can be protective against youth depression, these findings of inadequate parental knowledge indicate the need to promote these prevention messages to parents, while being sensitive to the potential caveats and conditions in which such parenting behaviors could lead to different outcomes.

When considering ways to target the promotion of prevention messages, it is notable that parental sociodemographic factors seem to be important correlates of their prevention beliefs. In particular, parents with non-tertiary education and those with LOTE status may be important subgroups to target. These findings are generally consistent with extant evidence that lower education attainment (e.g. Kaneko & Motohashi, 2007) and having a non-English-speaking background (e.g. Wong *et al.* 2010) are associated with poorer mental health literacy. Relatedly, some studies have found that parenting is associated with parental ethnicity (e.g. Keller *et al.* 2005) and level of education (e.g. Simons *et al.* 1991), whereby Anglo- and European parents and those with higher levels of education are less likely to use authoritarian and harsh parenting. However, a meta-analysis of the association between parenting and child depression has found that these factors (especially ethnicity) are not important moderators of the effect size of this association (McLeod *et al.* 2007). Nonetheless, evidence from these related fields of research should be taken together to inform policy and practice involving parenting programs and prevention and intervention efforts for depression in young people (Restifo & Bögels, 2009). Our findings that parent sex did not influence their prevention beliefs are not consistent with some past research indicating that female adults in general have been found to have better mental health literacy (e.g. Griffiths *et al.* 2008). However, as noted previously, less is known about *prevention* beliefs, and the limited literature to date (Schomerus *et al.* 2008; Jorm *et al.* 2010) has not reported adult or parent sex differences in these beliefs. It is noteworthy, nonetheless, that our sample of parents may not be representative of the general population, given that they were co-resident parents who were present with the youth respondent at the time of the survey and consented to being interviewed as well.

A personal history of mental health problems failed to influence parents' prevention beliefs, despite extant literature about the parenting deficiencies of parents with mental illness (Dozois *et al.* 2009). This suggests that while parenting behaviors may be sensitive to parents' psychiatric history, broader parental characteristics like their education and LOTE status may be more important predictors of their beliefs about their role in protecting their child against depression. In addition, although 61% of parents knew someone in their close network with a history of mental health problems, this also failed to influence their prevention beliefs.

In terms of identifying potential avenues to reach parents effectively with prevention messages, it is notable that receiving mental health related information through advertisements and their workplace influenced parental beliefs, although awareness of *beyondblue* did not. Previous studies have found that such avenues can be important agents for improving mental health literacy in the general population (e.g. Jorm *et al.* 2005). The current study suggests that mass media advertising and workplaces can be good avenues for promoting prevention messages to parents of young people. Although awareness of *beyondblue* has been found to predict other aspects of mental health literacy, prevention messages for parents of young people have not been a central focus in their campaigns to date, hence it is not surprising that it did not emerge as a significant predictor of parental prevention beliefs. Indeed, these findings highlight a need for future health promotion campaigns that focus on prevention messages for parents of young people, given evidence of the effectiveness of parenting programs which indicate that parenting behaviors are amenable to change (Sandler *et al.* 2011), and the important role that parents play in the development of youth depression (Cummings & Davies, 2002; McLeod *et al.* 2007; Restifo & Bögels, 2009).

Strengths and limitations

This national survey is the first of its kind to examine the mental health literacy of young people and their parents. In particular, it is the only national survey to

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our knowledge that has examined parental beliefs about prevention, contributing to our limited knowledge about the prevention aspect of mental health literacy in the community.

Nonetheless, its findings should be interpreted in light of the study limitations. Firstly, our sample of parents may not be representative of all parents of young Australians given that they are a self-selected sample of co-resident parents who consented for interview along with their child. Future surveys with a more representative sample of parents are required to ascertain whether these findings are robust. In addition, we only assessed parental beliefs about parenting behaviors with reference to a vignette character, hence it is unclear how closely the reported beliefs reflect or translate into actual parenting behaviors with their own child. In this brief telephone survey, we were only able to assess parental beliefs using a closed-answer format. Future surveys should include open-ended responses to better evaluate parents' prevention beliefs qualitatively. It was also a challenge to frame the prevention beliefs in such a way that they accurately reflect research evidence without being so blatantly explicit as to encourage socially desirable responding. For example, when trying to tap into parental overcontrol, we avoided the term 'overcontrol' as it may carry a pejorative connotation. Hence, it is possible that parents may have interpreted these behaviors differently. Finally, it is worth noting that the correlates examined only accounted for a modest proportion of parental beliefs. It is possible that other factors, such as their own experience of parenting, as well as the beliefs of close others, may also be important influences.

Implications and conclusions

Findings from this study indicate that while most parents believe that certain parenting behaviors can protect young people from depression, a significant minority does not; highlighting the need to improve parents' understanding of their role in prevention. Importantly, these findings revealed various sociodemographic characteristics of parents that can facilitate the targeting the promotion of these evidence-based prevention messages. They also suggest that mass media advertising and providing prevention messages through the workplace may be good avenues for channeling promotion efforts.

Declaration of Interests

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M. B. H. Yap* **and A. F. Jorm**
Orygen Youth Health Research Centre, Centre for Youth Mental Health, University of Melbourne, Parkville, Victoria 3052, Australia

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