

**Caregivers' beliefs about library visits: A theory-based study of formative research**

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**Title:** Caregivers' beliefs about library visits: a theory-based study of formative research

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**Key Points**

- A three-phase program of formative research was used to examine decisions to visit libraries with young children.
- Caregivers predominately resided in a low socio-economic area.
- Social cognitive factors influenced caregivers' decisions to visit the library.
- A range of beliefs were identified that could be targets for future intervention to promote library visits.

**Abstract**

Currently, no research has systematically investigated the beliefs underpinning caregivers' intentions to visit public libraries with their young children. Drawing from the theory of planned behaviour, this study adopted a three-phase program of formative research to examine the decision making processes of parents and carers with young children living in a low socio-economic area. Phase 1 identified seven behavioural, five normative, and ten control beliefs as modal salient beliefs held by parents and carers. Phase 2 identified a variety of key behavioural, normative, and control beliefs as significant predictors of intention to visit the library with their young child. Phase 3 elicited the reasons underpinning these key beliefs guiding parents' and carers' intentions, identifying 34 reasons that could be used in messages to promote library visits. The results provide useful information that intervention designers, councils, and library services can use to encourage library use among parents and carers with young children.

## **1. Introduction**

Acquiring the ability to read and write is a major developmental milestone for children living in a literate society. Literacy development is a process that begins from birth and continues throughout the school years. Many children who struggle with literacy during school show signs of low emergent literacy prior to school entry (Chatterji, 2006; Lonigan, Allan, & Lerner, 2011; Roberts, Jergens, & Burchinal, 2005). Unfortunately, even in developed countries such as Australia, research suggests that many children are at-risk or developmentally vulnerable when they arrive at school, with approximately one in six children starting school with below expected literacy and school-based skills (Australian Early Development Census, 2016). When children arrive at school with a poor foundation of literacy this not only increases vulnerability in literacy acquisition but also negatively impacts on academic achievement (Duncan et al., 2007; Shanahan & Lonigan, 2010). While Australia has made modest improvements in literacy levels, many students continue to struggle with literacy (Australian Curriculum, Assessment and Reporting Authority, 2015). Internationally, Australian primary school children are markedly surpassed in literacy, ranked 27th out of 45 developed countries in reading and significantly outperformed by students in 21 countries (Mullis, Martin, Foy, & Drucker, 2012). The theme of vulnerability beginning from the early school years suggests that efforts to improve reading should focus on early literacy development.

## **2. Problem statement**

The input and shared activities provided by families and caregivers during the early years is consistently shown as important to later literacy development (Johnson, Martin, Brooks-Gunn, & Petrill, 2008; Kim, Im, & Kwon, 2015; Niklas & Schneider, 2013). Frequency of parental reading, story-telling, singing songs, and the number of books at home have been found to have a positive influence on young children's emergent literacy skills

(Dunst, Hamby, & Star, 2011; Lonigan, Purpura, Wilson, Walker, & Clancy-Menchetti, 2013; Pillinger & Wood, 2014; Shanahan & Lonigan, 2010). For instance, parents' frequency of reading to children at age 4 to 5 years has positive effects on reading skills and cognitive skills up to age 10 or 11 years (Kalb & van Ours, 2014). Other longitudinal studies show that the degree to which parents engage in literacy rich activities at the age of 15 months old can have positive long-lasting effects on language and subsequent literacy skills (Rodriguez & Tamis-LeMonda, 2011). Reading from birth is not only important for literacy acquisition, it can act as a protective factor against future learning difficulties and facilitate adult-child bonding (Schickedanz & McGee, 2010; Seden, 2008; Swanson et al., 2011). Children therefore greatly benefit from the input into literacy development provided from parents and caregivers during the early childhood years.

In Australia, low literacy levels disproportionately affect children from socially disadvantaged or lower socio-economic backgrounds (Australian Curriculum, Assessment and Reporting Authority, 2015). However, research indicates that the more low income families engage children in literacy-related activity, such as reading and visiting the library, the greater the positive impact on children's emergent literacy skills (Lefebvre, Trudeau, & Sutton, 2011; Sénéchal, LeFevre, Hudson, & Lawson, 1996). Advances in technology have seen a steady decline in public library visits throughout Australia, and in other developed countries such as the United Kingdom (Library and Information Statistics Unit, 2015; National and State Libraries Australasia, 2015). Given the importance of literacy development, there is a need for research to explore factors influencing parents' and carers' decisions to engage with library services, particularly among at-risk families in low socio-economic regions. There is currently no research that systematically investigates the underlying beliefs of parents and carers regarding their decisions to visit public libraries with their young children. The current study targeted parents and carers with children under the

age of 6 years, as this period before children arrive at school has been identified as a critical period for developing emergent literacy skills that are necessary for later conventional literacy skill development (Shanahan & Lonigan, 2010). This study sought to determine the key beliefs and underpinning reasons that guide parents' and carers' decisions to visit the library. An understanding of parents' and carers' underlying belief systems in relation to visiting the library with their children may help to inform future policies and programs aimed at improving library use in at-risk population groups.

### **3. Literature review**

#### *3.1. The role of libraries*

Public libraries can play an important role in supporting early literacy development in children (Campbell-Hicks, 2016; Celano & Neuman, 2001). Not only do libraries help to close the "book gap" by providing free high-quality literacy material, libraries also provide opportunities to build capacity among caregivers through the provision of early literacy programs aimed at improving parents' skills and abilities (Celano & Neuman, 2001, Graham & Gagnon, 2013). Research suggests that the number of library visits, number of books in the home, and parents' own print exposure are related to children's emergent literacy skills (Gonzalez & Uhing, 2008; Sénéchal et al., 1996; Weigel, Martin, & Bennett, 2006).

Frequency of shared reading is consistently correlated with vocabulary scores (Evans & Shaw, 2008; Sénéchal, Pagan, Lever, & Ouellette, 2008) and public libraries offer an abundance of resources to help families engage in shared reading and select appropriate books. Phonological awareness is often widely regarded as the most important predictor of later reading success (Carson, Gillon, & Boustead, 2013). Research illustrates links between singing and nursery rhymes with phonological awareness (Dunst et al., 2011), as well as a number of activities that can be implemented within a shared reading context, such as the use of alphabet books, rhyming books, lettering sounding and dialogic reading strategies

(Kaderavek & Justice, 2002; Lefebvre et al., 2011; Ziolkowski & Goldstein, 2008). Libraries offer programs such as story time and rhyme time, utilising such techniques to teach parents ways to engage in enhanced literacy activities that can positively influence young childrens' early literacy abilities (Campana et al. 2016). Libraries therefore provide opportunities for families to access literacy-rich materials and activities, making the development of emergent literacy skills attainable for most children, even those from disadvantaged families.

### *3.2. Theory of planned behaviour*

The theory of planned behaviour (TPB) is a social cognitive model of individual decision making that asserts that intention is predicted by attitudes, subjective norm, and perceived behavioural control (PBC), and that behavior is predicted by intention and PBC (Ajzen, 1991). Attitudes are the overall evaluations, either positive or negative, towards performing a given behaviour (Ajzen, 1991). Subjective norm refers to the perceived social pressure from important referents to perform or not to perform a given behaviour (Ajzen, 1991). PCB relates to the perceived difficulty (or ease) of performing a behaviour, and the extent to which the behaviour is under an individual's volitional control (Ajzen, 1991).

The TPB has received considerable attention and support in the literature, with meta-analytic reviews demonstrating the predictive validity of the model across a wide range of behaviours (Armitage & Conner, 2001; McEachan, Conner, Taylor & Lawton, 2011). Despite recent criticisms (see Sniehotta, Pesseau, & Araújo-Soares, 2014), the TPB provides a sound framework as a starting point for understanding the antecedents guiding human behaviour (Ajzen, 1991; Armitage, 2015). The TPB has been commonly applied to understanding individual's decision making for their own behaviour (Armitage & Conner, 2001; Hamilton, White, Young, Hawkes, Starfelt & Leske, 2012; McEachan et al., 2011); however, emerging research suggests the value of the TPB for exploring decision making for others' behaviour, such as parents' decisions for their child's health behaviour (Cottrell, Harris, Deskins,

Bradlyn, & Wyre Coffman, 2010; Hamilton, Daniels, White, Murray, & Walsh, 2011; Hamilton, Kirkpatrick, Rebar, White, & Hagger, 2017; Hamilton, Spinks, White, Kavanagh, & Walsh, 2016; Hamilton, Thomson, & White, 2013; Spinks & Hamilton, 2016; Thomson, White, & Hamilton, 2012; Walsh, Hyde, Hamilton, & White, 2012). The TPB has also been found useful in other behavioural domains, with researchers applying the model to parents' intentions to attend programs aimed at reducing risk of adverse child outcomes (Dumas, Nissley-Tsiopinis, & Moreland, 2007; White & Wellington, 2009). One study comparing the utility of health belief model (HBM; Becker et al., 1977) and TPB to predict intention to attend and actual attendance at a parent training intervention found the TPB to be superior, accounting for more variance compared to the HBM (Thornton & Calam, 2010).

In addition to the direct determinants of intention and behaviour, attitudes, subjective norm, and PBC are each hypothesised to represent sets of salient beliefs. These beliefs reflect the underlying cognitive structure shaping an individual's intention and behaviour. Attitudes towards the behaviour are proposed to arise from an individual's behavioural beliefs, encompassed by beliefs about the likely outcomes or characteristics of performing the behaviour and weighted by evaluations being either positive or negative. Underlying subjective norm are normative beliefs, which relate to an individual's perceived social pressure from important others regarding the approval or disapproval of performing a particular behaviour, and is weighted by their motivation to comply. PBC is underpinned by a set of control beliefs which concerns beliefs about the factors that facilitate or impede behavioural performance, and is weighted by the perceived strength of these factors (Ajzen, 1991). Belief elicitation has been suggested to be a strength of the TPB (Ajzen, 2011, 2015); however, previous empirical testing often avoids expending sufficient effort in the formative research process of salient belief identification for a given target behaviour. Targeting beliefs reflects the typical means by which intervention designers can change behaviour based on the



theory (Fishbein & Ajzen, 2010). Formative research on beliefs, therefore, is necessary for depth of understanding of the behaviour in a given population as well as to test the efficacy of the TPB mechanisms in changing behaviour (Ajzen, 2015; Epton et al., 2014). To the authors' knowledge, beliefs underpinning Australian parents' and carers' decisions to visit public libraries has not been investigated.

#### **4. Methodology**

Given the important role beliefs play in guiding decision making, the current study adopted a three-phase formative research approach used by Epton et al. (2014) and recently adopted by Vayro and Hamilton (2016) to investigate the key beliefs underpinning parents' and carers' intentions to visit the library with their young children. Drawing on the original work of Epton et al. (2014), Phase 1 identified the most commonly held beliefs (behavioural, normative, and control) from a sample of the target population. Phase 2 identified beliefs (from Phase 1) that predict intentions to engage in the target behaviour. Phase 3 examined the reasons underpinning key beliefs (identified in Phase 2) to inform the development of messages to promote library visits among this at-risk population. This three-phased approach, eliciting the reasons underpinning key beliefs from a sample of the target population, provides depth of understanding of a given behaviour and the necessary first steps to informing programs and campaigns aimed at changing behaviour. This process allows for clear and tailored messages to be created that are specific to the target population and behaviour investigated. These theory-based and empirically-driven messages can be used to inform future interventions aimed to promote library use among parents and carers with young children.

##### *4.1. Participants*

Participants were parents and carers with children under the age of 6 years currently residing in a low socio-economic area. Socio-economic status was determined by the Socio-

Economic Indexes for Areas (SEIFA); a measure of an area's relative disadvantage (Australian Bureau of Statistics, 2013). Postcode rankings of the most disadvantaged to least disadvantaged areas in Australia indicated an average percentile rank of 45, indicating that, on average, participants resided in areas that are relatively disadvantaged compared to areas with a higher percentile score. Participants in all phases were recruited through face-to-face contact at swimming schools ( $n = 4$ ), immunisation clinics ( $n = 3$ ), sporting clubs ( $n = 4$ ), public libraries ( $n = 1$ ), and a shopping complex ( $n = 1$ ).

#### 4.2. Design

The study was approved by the University Human Research Ethics Committee and formed part of a larger project investigating factors influencing parental decisions to visit the library with their young children. Participants in all phases completed paper-based, self-report questionnaires. The majority of questionnaires were completed in the setting participants were recruited. An information sheet for the surveys in each of the three phases was provided and informed consent was implied with return of a completed questionnaire. The target behaviour was defined according to the TACT principle (Fishbein & Ajzen, 1975); target (the library), action (visit), context (with my child), and time (in the next six months). Participants were instructed that for the purposes of the research, *child* relates specifically to their child and/or children who are under the age of 6 years and *library* relates to any public library in the local district.

As described earlier, the current study adopted a three-phase formative research approach used by Epton et al. (2014). Phase 1 identified modal salient behavioural, normative, and control beliefs that underpin parents' and carers' attitudes, subjective norm, and perceived behavioural control regarding visiting the library with their young child. Phase 2 identified key beliefs that made an independent and significant contribution to parents' and carers' intentions to visit the library with their young child. Phase 3 identified the modal

salient reasons underpinning each key belief that can be used for developing messages to promote library use among parents and carers with young children.

#### *4.3. Phase 1: Belief elicitation*

##### *4.3.1. Method*

Phase 1 comprised 22 parents and carers (2 male, 20 female) ranging in age from 20 to 44 years ( $M_{\text{age}} = 30.32$ ,  $SD_{\text{age}} = 6.92$ ). Those who participated in Phase 1 shared similar characteristics to the larger Phase 2 sample. As outlined by Fishbein and Ajzen (1975), the study consisted of open-ended questions to elicit modal salient behavioural, normative, and control beliefs of parents and carers. Behavioural beliefs were elicited with three questions asking participants to list the advantages and disadvantages regarding the target behaviour (e.g., "Please list what you believe are the advantages of visiting the library with your child"). Normative beliefs were assessed with three questions asking participants who would approve and disapprove of the target behaviour (e.g., "Please list any individuals or groups of people who would approve of you visiting the library with your child"). Control beliefs were elicited with three questions asking participants to list factors that might encourage and prevent them from engaging in the target behaviour (e.g., "Please write down any circumstance or factors that might prevent or discourage you from visiting the library with your child").

##### *4.3.2. Results*

Content analysis was performed on the elicited beliefs and these formed the belief-based measures in the Phase 2 survey (Table 1). The analysis identified seven behavioural (e.g., develop my child's learning), five normative (e.g., school teachers), and ten control (e.g., lack of time) modal salient beliefs relating to visiting the library.

[Insert Table 1 here]

#### *4.4. Phase 2: Belief correlation*

##### *4.4.1. Method*

A total of 212 parents and carers (40 male, 172 female) aged between 20 and 61 years ( $M_{\text{age}} = 33.77$ ,  $SD_{\text{age}} = 6.40$ ) were recruited. The majority of parents and carers listed their highest level of education as a diploma or trade certificate (42.9%) or as having completed senior high school (19.3%). Around 67% of the sample were employed, with the remainder comprising a mix of students and those not in paid employment. The majority of the parents and carers reported being either married or in de facto relationships (81.2%). Most reported English to be their first language ( $n = 196$ , 92.5%) and being born in Australia ( $n = 173$ , 81.6%).

Participants were asked to rate a series of questions measuring TPB belief-based constructs (elicited in Phase 1) regarding visiting the library with their young children. Intention to perform the target behaviour was measured with three items (e.g., “Do you agree that in the next six months: I expect to visit the library with my child”, scored *strongly disagree* [1] to *strongly agree* [7]). The measure was reliable with an alpha co-efficient of .97. Behavioural beliefs were assessed through the seven salient behavioural beliefs derived in Phase 1. Participants were to indicate how likely the four benefits (e.g., develop my child’s learning) and three costs (e.g., my child may disrupt others in the library) would result if they visited the library with their child in the next six months, scored *extremely unlikely* [1] to *extremely likely* [7]. Normative beliefs were assessed by the five specific referents identified in Phase 1. Participants were asked to rate how likely these referents (e.g., spouse or partner, friends) would approve of them visiting the library with their child in the next six months, scored *extremely unlikely* [1] to *extremely likely* [7]. Control beliefs were assessed by the five facilitators (e.g., lack of time) and five inhibitors (e.g., access to a range of activities for my child) elicited in Phase 1. Participants rated how likely it was that these factors would prevent or encourage them to visit the library with their child in the next six months, scored *extremely unlikely* [1] to *extremely likely* [7].

#### 4.4.2. Results

In order to determine key beliefs that guide parents' and carers' intention to visit the library with their child, similar processes to those specified by Epton et al. (2014) and von Haefen, Fishbein, Kasprzyk, and Montano (2001) were used. First, Pearson product-moment correlation matrices were analysed to identify beliefs that are significantly correlated with parents' and carers' intentions. Second, significant beliefs were entered in a multiple regression analysis to identify the key beliefs that make independent and significant contributions to intention within each belief-based measure (e.g., behavioural, normative, and control beliefs, thus three separate regression analyses in total). Bivariate correlations revealed all behavioural beliefs ( $r = .16$  to  $.47$ ), all normative beliefs ( $r = .30$  to  $.54$ ), and five out of ten control beliefs ( $r = .15$  to  $.44$ ) to be significantly correlated with intention (Table 1). Multiple regression analysis on significant behavioural beliefs (Table 2) revealed three behavioural beliefs ( $R^2 = .28$ ), "encourage my child to read" ( $\beta = .25$ , 95%  $CI = [.07 - .54]$ ), "increased parental stress to keep my child quiet" ( $\beta = -.184$ , 95%  $CI = [-.26 - -.06]$ ), and "develop my child's learning" ( $\beta = .257$ , 95%  $CI = [.07 - .52]$ ) as significant predictors of intention. Multiple regression analysis on significant normative beliefs identified two normative beliefs ( $R^2 = .33$ ), spouse/partner ( $\beta = .35$ , 95%  $CI = [.15 - .46]$ ) and grandparents ( $\beta = .26$ , 95%  $CI = [.09 - .42]$ ) as significantly related to intention. Multiple regression analysis on significant control beliefs revealed three control beliefs ( $R^2 = .28$ ), "spending time with my child" ( $\beta = .43$ , 95%  $CI = [.42 - .73]$ ), "boisterous child (e.g., loud, energetic)" ( $\beta = -.22$ , 95%  $CI = [-.29 - -.09]$ ), and "lack of time" ( $\beta = -.17$ , 95%  $CI = [-.28 - -.05]$ ) as significant predictors of intention.

[insert Table 2 here]

#### 4.5. Phase 3: Reason elicitation

##### 4.5.1. Method.

Phase 3 comprised 23 parents and carers (5 male, 18 female) ranging in age from 25 to 43 years ( $M_{\text{age}} = 35.18$ ,  $SD_{\text{age}} = 4.76$ ). Sample characteristics were largely representative of participants in Phase 2. Following guidelines outlined by Epton et al. (2014), participants were asked a series of open questions to gain qualitative data on the reasons underpinning the eight key beliefs identified in Phase 2. Participants were asked to provide up to three reasons underlying each key belief (e.g., “What are the reasons that visiting the library can develop your child’s learning?”).

#### 4.5.2. Results

Thematic content analysis was performed on the reasons elicited. Reasons that exceeded a 20% frequency cut off (5 participants) were classed as a salient modal reason. Overall, 34 reasons were identified with themes supported by between 5 and 13 participants. Table 2 provides full details on modal reasons underpinning each key belief.

### 5. Discussion

Currently, no research has systematically used a theory-based approach to investigate the beliefs underpinning parents’ and carers’ intentions to visit public libraries with their young children. Encouraging library use may be particularly important for families at risk due to low-socio economic disadvantage. An understanding of caregivers’ underlying beliefs will inform the development of resultant interventions designed to encourage reading and promote literacy during a critical period for child literacy development. The current study adopted formative research procedures, using a TPB belief-based approach, and identified key belief-based targets and underpinning reasons that can be used to create theory-based and empirically-driven messages aimed to promote library visits among parents and carers with young children. Overall a range of behavioural, normative, and control beliefs predicted parents’ and carers’ intentions to visit public libraries, and a number of underlying modal salient reasons were identified. The depth of information gained from the 34 reasons underpinning the key beliefs

provides rich explanatory information that can be used to understand, and ultimately increase, library visits among parents and carers with young children.

The behavioural belief findings suggest that positive and negative beliefs are held by parents and carers, with each having influence on their intention to visit the library. Specifically, parents and carers indicated that they believe “develop their child’s learning” and “encourage their child to read” as two positive outcomes associated with visiting the library. The results suggest that when parents and carers are deciding whether or not to visit the library they focus on the educational and reading benefits for their child. These findings are similar to previous research on parental involvement, and are suggestive of parental beliefs regarding desirable child outcomes and the effectiveness of specific parenting practices to influence parents’ level of involvement in their child’s education (Hoover-Dempsey & Sandler, 1997). Additionally, “increased parental stress to keep their child quiet” was identified as a negative outcome associated with caregivers’ motivation to visit the library. This finding suggests that if parents and carers believe libraries are quiet places and will experience judgement from other library users when their child is noisy, this will likely impact negatively on their intentions to visit the library. Educational literature shows support for how the social atmosphere of a setting or learning environment impacts parent’s perceptions and their levels of involvement (Green, Walker, Hoover-Dempsey, & Sandler, 2007; Hoover-Dempsey & Sandler, 1997). For example, research shows that the school environment or school climate is essential in enhancing parental involvement in their child’s education (Seefeldt, Denton, Galper, & Younoszai, 1998), particularly in schools serving ethnically and socioeconomically diverse families (Griffith, 1998). Environments characterised as welcoming and empowering have been shown to positively influence parents’ involvement, compared to environments not characterised in this way (Griffith, 1998).

Normative beliefs were also found to be influential, especially from those important others who approve of visiting the library, including “child’s grandparents” and “partner /spouse”. The findings suggest that closer (i.e., immediate family members), rather than more distant people (e.g., childcare workers, school teachers), influence parents’ and carers’ intentions to visit the library with their young child. Educational literature lends support to the influence of important others as key motivators in parents’ decisions to become involved in their children’s education (Hoover-Dempsey & Sandler, 1997). Specifically, when parents perceive their involvement as expected and valued by important referents, they are more likely to become involved in the education of their child. The influence of partner or spouse on parent’s intentions regarding various child behaviours has been previously supported in the literature (Hamilton, Daniels, Murray, White, & Walsh, 2012; Spinks & Hamilton, 2015). Other research indicates that grandparents commonly participate in educational and care duties for grandchildren (Bernal & de la Fuente Anuncibay, 2007). Given the focus of parents and carers on the educational and reading benefits of visiting the library, the common duties occupied by grandparents lends support for the influence of grandparents as important referents concerning decisions for young children’s educational activities.

Finally, a range of control beliefs were elicited, with the majority relating to factors that discourage parents and carers from visiting the library. The control belief findings suggest that parents and carers identify a “lack of time” and “boisterous child (e.g., loud, energetic)” as factors that impede their ability to go to the library. Prior research supports child behaviours and temperament as factors associated with parents’ self-efficacy beliefs (Jones & Prinz, 2005). Other research lends support for the influence of perceived demands on parent’s time, particularly regarding work and other family responsibilities, and on parents’ perceived ability to be involved in their children’s education (Hoover-Dempsey, Bassler, & Burow, 1995). Parental schedules characterised as inflexible or with heavy time



demands tend to be associated with less involvement from parents (Heymann & Earle, 2000; Peña, 2000). The findings, however, also indicate that “spending time with their child” is an important belief impacting intentions to visit the library. Parents and carers may be particularly motivated to spend time with their child out of a desire to maintain quality parent-child relationships, especially given the demands of parenting (Roeters, Van der Lippe, & Kluwer, 2010). Research suggests parents will often seek out opportunities to be involved in their child’s education in ways that fit in with the demands they routinely experience (Hoover-Dempsey & Sandler, 1995).

The current study also revealed a number of reasons underpinning each of the key behavioural, normative, and control beliefs. A total of 34 reasons were elicited, including components of positive beliefs and how to circumvent negative beliefs. Positive reasons generally included promoting their child’s learning and development, encouraging reading, and attending programs and activities offered by the library. The numerous positive reasons indicate that there are benefits to visiting the library that could be used to potentially increase visiting behaviour among this target group. The circumventing reasons given for the negative beliefs, such as views that libraries are quiet places and patrons will disapprove of children being noisy in the library, provide grounds for suggestions as to what could be implemented to counter the beliefs. For example, this knowledge could be used to develop persuasive messages that challenge parents’ and carers’ beliefs that libraries are quiet places. The varied influences shown to impact on parents’ and carers’ intentions to visit the library indicate that interventions aimed to increase their engagement could take a multi-faceted approach, targeting a variety of influences and beliefs.

Research suggests that barriers to information seeking are often intertwined, incorporating affective and cognitive factors (Savolainen, 2016). Examining underpinning reasons therefore provides rich data on the reasoning behind parents’ and carers’ beliefs. For

example, inspection of underpinning reasons suggests that parents' and carers' perceptions of the library environment influence both their attitudes towards visiting the library and their perceived control over visiting the library. The findings imply that if parents believe libraries are quiet places and that they will experience judgement from other library users when their child is noisy, then this will be likely to increase their parental stress and negatively impact their intentions to visit the library. Examination of underpinning reasons indicates that these perceptions are associated with parents' perceived control, with parents identifying a boisterous child (e.g., loud, energetic) as a barrier to visiting the library for the same reasons. Other research supports this association, suggesting that parents' perceptions of stress influence their self-efficacy (Scheel & Rieckmann, 1998). Because stress occurs as a result of an individual's perception of an event (e.g., library patrons will disapprove), not the event itself (e.g., noisy/boisterous child at the library) (Lazarus & Folkman, 1984), targeting beliefs that underpin negative behavioural outcomes of parental stress will also be likely to influence perceived barriers of having a boisterous child.

### *5.1. Application of findings*

Identifying key beliefs that guide individuals' decision making is an important line of investigation to inform interventions to promote behaviour change (Fishbein, von Haeften, & Appleyard, 2001). The findings of the current study can be used for the development of more effective messages that are theory-based and empirically-derived. Recent work by Michie et al. (2013) identifies specific techniques that can be adopted for behaviour change interventions across various behavioural domains. The beliefs identified in this formative research can be used with these techniques to form the foundation of strategies aimed to promote library visits among this target population.

For example, attitude change among parents and carers could be promoted by targeting key behavioural beliefs, including developing their child's learning and encouraging

their child to read. Providing information and using persuasive communication are behavioural change techniques that can be used to target a person's beliefs regarding consequences of their behaviour (Michie et al., 2013; Michie, Johnston, Francis, Hardeman, & Eccles, 2008). There is evidence to support the idea that framing these messages in terms of benefits gained (gain framed) will be more persuasive than framing these messages in terms of costs of not engaging in the behaviour (loss framed) (Gallagher & Updegraff, 2012). Gain framed messages may be particularly relevant for this population, with research suggesting that parents consider gain framed advertisements to be more engaging when messages target parents as a proxy agent, indirectly promoting their child's behaviour (Jarvis, Gainforth, & Latimer-Cheung, 2014). Libraries could focus on promoting the educational and reading benefits of visiting the library for their child, highlighting how library activities and programs are relevant, engaging, and targeted to the needs and interests of young children. Communication and marketing activities could also highlight the ways in which visiting the library adds value beyond what caregivers may already be doing with their child to support their education and reading.

Strategies could also focus on improving parents' and carers' self-efficacy and perceived control over visiting the library with their young child. Specifically, strategies could target beliefs regarding spending time with their child as a facilitating factor and a lack of time as an impeding factor. Libraries could draw attention to the way in which library activities can be flexible to parents and carers demands by demonstrating ways they could schedule their time to include visiting the library, such as on the way to doing the shopping. Libraries could also investigate where additional activities could be scheduled at times that meet the needs of families with inflexible work schedules. Additionally, libraries could promote the time and effort parents and carers allocate to visiting the library as well spent, such as by showing how library visits can be fun and how programs promote bonding with

their child. Showing how parents and carers can spend time with their children at the library in ways that are enjoyable and valuable will likely influence motivation, manifest more positive emotions, and lower stress (Katz, Kaplan & Buzukashvily, 2011).

The findings also show that social pressure from important others influences parents' and carers' intentions in this context. Intervention strategies to encourage library visits could openly show grandparents and partners or spouses as liking and approving of parents and carers visiting the library with their young children. Research indicates that providing information about others' approval, such as specifying what others will like, approve or disapprove of, is a commonly used behavioural change technique targeting social influences (Michie et al., 2008, 2013). Strategies to increase library visits could therefore highlight specific behaviours and activities that grandparents and partners or spouses would approve of and like at the library, such as story time sessions and reading activities.

Finally, the findings suggest that parents' and carers' perceptions of the library environment influence both their attitudes towards visiting the library and their perceived control over visiting the library. When targeting the environmental context, behavioural change techniques commonly create changes in the physical environmental (i.e., environmental restructuring) to facilitate the desired behaviour (Michie et al., 2008, 2013). Therefore, strategies could look at ways to create a more inviting library climate for parents and carers that simultaneously challenges negative outcome beliefs that visiting the library can result in parental stress and control beliefs that a boisterous child is a reason to discourage library visits. Such strategies could include a focus on creating a strong sense of "we belong here" through the creation of visual displays around the library reflective of all families (Hoover-Dempsey et al., 2005). Libraries could also create multiple comfortable spaces where parents and carers can be encouraged to engage in a range of fun activities with their children with minimal noise restrictions. Marketing campaigns could seek to

communicate how modern libraries are a place for all ages, highlighting ways in which the library physical environment is welcoming and supportive of parents and carers of young children. Campbell-Hicks (2016) suggests the perception of libraries as welcoming is a factor that has significantly influenced the effectiveness of early literacy programs in public libraries in countries such as Canada. Other strategies include paying attention to internal factors such as the long-term commitment to improving and maintaining the library climate, and creating respectful, responsive, and communicative relations between staff and caregivers of young children.

### *5.2. Strengths and limitations*

To the authors' knowledge this is first study to systematically investigate the underlying belief systems influencing parents' and carers' intentions using a sound theoretical basis. The results provide important information that can be used to inform interventions aimed at increasing parents' and carers' library visits. The study benefited from a large community sample within a low socio-economic region, directly targeting an at-risk population of interest for future intervention strategies. The research, however, is not without limitations. The sample comprises predominately females and individuals with English as their first language and thus, may potentially limit generalisability of the findings. The use of self-reporting measures may have lead individuals to respond in a way that is more socially desirable, affecting the results obtained. Further, although the study revealed a number of beliefs to target in intervention programs, future research should test the efficacy of interventions targeting such beliefs in changing parents' and carers' intention, and subsequently behaviour.

## **8. Conclusion**

Given the importance of reading and other literacy-promoting activities prior to school entry, the current study systematically investigated the underlying beliefs for parents'

and carers' intentions to visit public libraries with their young children, an area which, to date, has received no empirical attention. An increased understanding is needed to encourage reading and promote library use during the critical period in which children's emergent literacy skills are developing. The current study provides important information that can be used when developing strategies aimed at increasing parents' and carers' library visits. The multiple and varied influences shown to affect parents' and carers' intentions to visit public libraries with their young children indicate that strategies aimed to increase engagement levels should take a multi-faceted approach, targeting a variety of beliefs. The knowledge gained from this formative research can be used to encourage library visits among caregivers and their young children and, ultimately, improve children's emergent literacy development and later success in reading.

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Table 1

*Mean and Standard Deviations of Behavioural, Normative, and Control Beliefs and Correlations with Intentions to Visit the Library*

Beliefs	<i>M</i>	<i>SD</i>	Intention <i>r</i>
<b>Behavioural beliefs</b>			
Develop my child's learning	5.74	1.50	.46**
Expose my child to a variety of activities	5.47	1.57	.41**
Encourage my child to read	5.99	1.43	.47**
Improve my child's social skills	4.96	1.76	.38**
My child may disrupt others in the library	3.69	2.11	-.16*
Increased parental stress to keep my child quiet	3.44	1.98	-.21**
My child may damage library books	2.82	1.93	-.18**
<b>Normative beliefs</b>			
School teachers	6.07	1.48	.34**
Childcare workers	5.32	1.95	.30**

Grandparents	5.00	1.80	.52**
Friends	4.52	1.66	.47**
Spouse/partner	4.97	1.95	.54**
<b>Control beliefs</b>			
Lack of time	5.33	1.78	-.23**
Lack of access to transport	1.57	1.27	-.09
Child illness	3.13	1.98	.07
Boisterous child (e.g., loud, energetic)	3.01	1.97	-.24**
Bad weather	2.44	1.80	.03
Access to a range of activities for my child	5.90	1.39	.32**
Having an allocated eating area	4.27	2.02	.13
Marketing of events	4.98	1.80	.15*
Having a playroom for my child	4.83	1.94	.09
Spending time with my child	6.05	1.29	.44**

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Note: \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

Table 2

*Summary of Results from Phase 1, 2, 3 for Parents' and Carers' Intentions to Visit the Library with their Young Child*

	Phase 1: Belief elicitation		Phase 2: Intention prediction ( $\beta$ s)	Phase 3: Reasons elicitation	
	Category	<i>N</i> = 22	<i>N</i> = 212	<i>N</i> = 23	
Behavioural beliefs	Advantages	Develop my child's learning ( <i>n</i> = 7)	.26**	What are the reasons that visiting the library can <i>develop your child's learning</i> ?	Develop reading skills ( <i>n</i> = 13) Large selection of books to keep child's interest ( <i>n</i> = 9) Attending activity programs ( <i>n</i> = 7) Enhancing vocabulary ( <i>n</i> = 7) Exposure to an enriched educational environment ( <i>n</i> = 6) Develop writing skills ( <i>n</i> = 6) Develop social skills ( <i>n</i> = 6)
		Encourage my child to read ( <i>n</i> = 10)	.25*	What are the reasons that visiting the library can <i>encourage your child to read</i> ?	Variety of books for all ages ( <i>n</i> = 11) Seeing others reading ( <i>n</i> = 7) Exposure to books ( <i>n</i> = 6) Making reading fun ( <i>n</i> = 5) Environment with a focus on reading ( <i>n</i> = 5) Ability to choose a book they like ( <i>n</i> = 5) Learning activities around books ( <i>n</i> = 5)
	Disadvantages	Increased parental stress to keep my child quiet ( <i>n</i> = 9)	-.18**	What are the reasons why visiting the library can <i>increase parental stress to keep your child quiet</i> ?	Views that libraries are quiet places ( <i>n</i> = 10) Disapproval from other library patrons ( <i>n</i> = 5)
Normative beliefs	Approve	Child's grandparents ( <i>n</i> = 5)	.26***	What are the reasons your <i>child's grandparents</i> would want you to visit the library with your child?	Child learning and development ( <i>n</i> = 9) Spending quality time with my child ( <i>n</i> = 7) Past generational experiences and expectations ( <i>n</i> = 5) Encourage enjoyment in reading ( <i>n</i> = 5) To encourage my child to read ( <i>n</i> = 5)
		Partner/Spouse ( <i>n</i> = 9)	.35**	What are the reasons your <i>partner/spouse</i> would want you visit the library with your child?	Bonding ( <i>n</i> = 6) Help child's learning and development ( <i>n</i> = 7) Programs offered by the library ( <i>n</i> = 7) The variety of books to encourage reading ( <i>n</i> = 5)
Control beliefs	Preventative	Lack of time ( <i>n</i> = 6)	-.17***	What are the reasons that a <i>lack of time</i> would prevent you from visiting the library with your child?	Work commitments ( <i>n</i> = 13) Other child related commitments ( <i>n</i> = 8) Other commitments/day-to-day activities ( <i>n</i> = 6)
		Boisterous child (e.g., loud, energetic) ( <i>n</i> = 9)	-.22***	What are the reasons that having a <i>boisterous child (e.g., loud, energetic)</i> would discourage you to visit the library with your child?	Views that libraries are quiet ( <i>n</i> = 6) Judgement and disapproval from other patrons ( <i>n</i> = 7) Disrupting other library patrons ( <i>n</i> = 6)
	Facilitative	Spend time with my child ( <i>n</i> = 6)	.43**	What are the reasons that would encourage you to <i>spend time with your child</i> if you visited the library?	Programs and activities offered ( <i>n</i> = 9) My child's learning and development ( <i>n</i> = 7) Encourage my child to read ( <i>n</i> = 5)

Note: \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$