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Educational Daycare from Infancy and Externalizing and
Internalizing Behaviors in Early Childhood: Differential
Effect by Children's Vulnerability

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Abstract

This study compares externalizing and internalizing behaviors in toddlerhood and preschool years across 66 non-vulnerable and vulnerable children attending an educational daycare ($n = 45$) or remaining under parental care ($n = 21$). Results indicate that, for non-vulnerable children, type of care isn't associated with externalizing and internalizing behaviors. However, for vulnerable children, attending a daycare is associated with a reduction in externalizing behaviors and with higher (but also decreasing) internalizing behaviors between 2 and 4 years of age. In contrast, parental care is associated with an increase in both externalizing and internalizing behaviors.

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Keywords: educational daycare, risk factors, externalizing behaviors, internalizing behaviors

1. Introduction

In 1997, the Government of Québec (Canada) created a network of regulated daycares offering an educational program for children from birth to school entry, for a contribution from families of \$5 per day (\$7 per day since 2004). According to the latest data available, there are 430,900 children aged 0-4 years

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residing in the province of Québec. Of those, 214,804 children are attending regulated daycares, the majority in non-profit centers (82,671 spots) and homes (91,607 spots). For many children, daycares provide the first transition between the family environment and an educational setting where educators have the task of ensuring that children acquire behaviors that promote adaptation in a group (e.g., taking turns, inhibiting impulses, etc.) (Lamb, 2004; Mashburn & Pianta, 2006). Therefore, this early educational experience could contribute to children' educational success before school entry by leading to the acquisition of behaviors that foster good functioning in a group and, consequently, be associated with fewer externalizing (aggression, destruction, etc.) and internalizing (anxiety, withdrawn, etc.) behaviors.

In this regard, several studies have examined the relationship between daycare attendance and externalizing behaviors in children, compared with those of children remaining in parental care during the same period. Others, though fewer, have pursued this objective relating to internalizing behaviors. Regarding externalizing behaviors, some research reported no relation between childcare type and behavioral outcomes. Bacharach and Baumeister (2003) revealed that, compared with parental care, daycare attendance is not associated with an increased risk of externalizing behaviors in kindergarten. Likewise, Côté et al. (2008) reported that 4 year-old Canadian children who attended daycare during their first year of life did not demonstrate more externalizing behaviors (physical aggression) than those in parental care. Similarly, a Québec-based study from Bigras et al. (2009) noted that children attending structured daycare (e.g., centers and homes) did not demonstrate higher or lower externalizing behaviors scores at 2,5 years old. On the other hand, others have found an increased risk of externalizing behaviors associated with daycare attendance. For example, Hickman's (2006) longitudinal results showed that daycare attendance during preschool years is associated with higher scores of externalizing behaviors both in kindergarten and first grade. Along the same line, Loeb et al. (2007) reported that daycare attendance initiated during the second year of life seems to be associated with more externalizing behaviors at the beginning of kindergarten, and an even higher more if attendance started before age 1. For younger children, Van Beijsterveldt, Hudziak, and Boomsma (2005) also observed that children who attended daycare showed more externalizing behaviors at 3 years old than those who stayed home. With regards to internalizing behaviors, similar contrasting results were obtained. Bigras et al. (2009) reported lower scores of internalizing behaviors among 2,5 year-old children attending structured daycare. Hickman (2006) noted the same among kindergarteners who attended daycare the year before. Inversely, the results of Côté et al. (2008) emphasize that children who experienced daycare from their first year of life manifested more internalizing behaviors at 4 year-old than those under parental care. Finally, Van Beijsterveldt, Hudziak, and Boomsma (2005) indicated that children who attended daycare did not show different scores of internalizing behaviors at 3 years old than those who stayed home with their parents.

In short, one of the prominent features of these results is their inconsistency. Indeed, some researchers reported that daycare attendance initiated during the first year of life was associated with higher scores of externalizing or internalizing behaviors in children at 2.5, 3, 4, 5 and 6 years old, while others have found the opposite. Meanwhile, some observed no differences between behaviors of children attending daycare and those under parental care. There are several limits to these results, highlighting the need for further studies on the relationship between educational daycare attendance and externalizing and internalizing behaviors in children. First, only three studies measured outcomes during early childhood, when daycare attendance could promote appropriate behaviors and educational success. The first study, by Van Beijsterveldt, Hudziak, and Boomsma (2005), was conducted in the Netherlands, where most children don't attend daycare full time, a factor that may have influenced their results. Similarly, the result of Côté et al. (2008) illustrate the 1994 Canadian reality, where most children were either under parental care or in an unregulated form of non-parental care. The Québec-based study from Bigras et al. (2009) reflects

the importance of early childhood education for young child development in the Canadian province where the government is largely funding daycare. However, in that research, the specific effect of those non-profit educational daycares is impossible to isolate from that of for-profit daycares, which are known to be of lesser quality. Finally, inconsistencies in these conclusions could result from the fact that children's vulnerability isn't considered in the previous results reported. Indeed, this variable is associated with more convergent results when examining the relation between type of childcare and child behaviors.

Some have focused on children's exposure to risk factors such as poverty, single parenthood, low education of the mother and young motherhood that appear to be associated with less-positive socialization processes in the home environment, since being exposed to the latter during a rapid period of growth places children at a greater risk of following less-favourable behavioral trajectories (Dodge, Pettit, & Bates, 1994; NICHD Early Child Care Research Network, 2005). Educational daycare could provide a compensatory educational environment and thus act as a protective factor for vulnerable children. Consequently, it would be expected to observe less externalizing and internalizing behaviors among vulnerable children attending daycares. Research confirms such expectations. For instance, Peng and Robin (2010) indicated that, compared to parental care during the first year of life, daycare initiated at this time was associated with lesser externalizing and internalizing behaviors among children attending. Borge et al. (2004) suggested similar results, since children who stayed home with their mothers showed more externalizing behaviors at 2-3 years-old than children who attended a daycare. At 4 year-old, children still under parental care exhibited more externalizing and internalizing behaviors than those who attended daycare during the same period (Côté, et al., 2008). Apparently, when studying samples of vulnerable children, results obtained are more convergent. For these children, attending an educational daycare in infancy is associated with fewer externalizing and internalizing behaviors afterwards compared with children remaining under parental care. As convergent and positive as they are, these results don't reflect the effect of universal access to non-profit regulated daycare, as in Québec.

Although vulnerable children seem to benefit from daycare attendance, they are found to be the least frequent attenders in Québec (Gingras, Audet, & Nanhou, 2011). Most children attending daycare are those who do not cumulate socioeconomic risk factors in their home environment. So, it is important to ensure that such an early experience guarantees low externalizing and internalizing behaviors among vulnerable children. At the same time, it is essential to ensure that non-vulnerable children, who attend these programs in greater proportion, experience equal benefit. Investigation should begin from the moment externalizing and internalizing behaviors seem to emerge, that is around 2 years-old (Baillargeon et al., 2007; Miner & Clarke-Stewart, 2008; Shaw, Gilliom, Ingoldsby, & Nagin, 2003), and carry forward until they appear to gain in stability, around 4 years-old (Hartman, 2009; Heller, Baker, Henker, & Hinshaw, 1996; Kerr, Lunkenheimer, & Olson, 2007). Longitudinal data would help reveal behavioral trajectories associated with childcare type experienced from the first year of life since, among other things, it is a period of particularly swift neurological growth (Conseil canadien sur l'apprentissage, 2007).

Accordingly, the goal of this study is to: 1) Compare externalizing behaviors at 2 and 4 years-old between children, non-vulnerable and vulnerable, attending an educational daycare and those remaining under parental care from their first year of life; 2) Compare internalizing behaviors at 2 and 4 years-old between children, non-vulnerable and vulnerable, attending an educational daycare and those remaining under parental care from their first year of life.

2. Method

This study conducted secondary analysis on the data of the *Jeune enfant et ses milieux de vie* (JEMVIE) project, a longitudinal study concerned with the development of 150 children experiencing one of three types of care since their first year of life (daycare center, family-based daycare or parental care). After recruitment, the participants were visited at home on six occasions as part of the project, first when aged 5-12 months and after at 15, 18, 24, 36 and 48 months (for more details; Bigras et al., 2010). This study includes data collected when children were aged of 5-12, 24 and 48 months old.

2.1. Subjects

The 66 participants were recruited between the ages of 5 and 12 months ($M = 10.92$ months; $SD = 1.5$ months) and were grouped according to having continuously experienced the same type of care (daycare, $n = 45$; parental care, $n = 21$) from their first to their fourth year of life. Based on household income, family structure, and the mother's education and age at the time of the child's birth, this sample includes 53 non-vulnerable (80%) and 13 vulnerable (20%) children, of whom 6 were attending daycare (13%).

2.2. Measures

Externalizing and internalizing behaviors. Behaviors of 2-year-old children are reported using the *Child Behavior Checklist 2/3* (Achenbach, 1992). This questionnaire is used to quantify the manifestation of behaviors based on items relating to: 1) anxiety, 2) social withdrawal, 3) sleep, 4) somatic complaints, 5) aggression, and 6) destruction. It consists of 100 statements about children's concrete behaviors. Based on the two months prior to completing the questionnaire, the parent must give a score of 0 (never present), 1 (sometimes) or 2 (often) for each item. Two standardized scores (T-scores) are then obtained: externalizing behaviors and internalizing behaviors. This scale has a test-retest reliability of 0.85 and the fact that it allows for adequate discrimination between children clinically referred for behavioral problems and those not referred indicate a good content validity (Achenbach, 1992).

At 4 years old, the revised *Child Behavior Checklist 1.5/5* was used (Achenbach & Rescorla, 2000). Although it shows a different factorial structure[†] than the earlier version, it was built upon the same procedures, includes most of the same statements (with the exception of two items) and gives the same two standardized scores at the end. The correlations between the CBCL 2/3 and CBCL 1.5/5 is 0.73 for the externalizing score and 0.86 for internalizing score, which indicate a high consistency between the children's scores on both profiles. Since the factorial structure of the two profiles are different and the normalization of the latest profile of the CBCL has been done on a larger and more representative sample, the CBCL 2/3 have been recoded like the CBCL 1.5/5 (items 51 and 79 haven't been considered)[‡]. For externalizing and internalizing behaviors, a T-score of 28-59 is consider in the normal range, 60-63 in the borderline range and 64-100 in the clinical range.

Type of childcare. Parents reported their child's childcare experience with a questionnaire consisting of seven questions about the type, continuity and quantity of care experienced. It ensured that children experienced the same type of care (daycare/parental care) at the time of each report.

[†] More information on the new factorial structure can be obtained from the instrument manual (Achenbach & Rescorla, 2000).

[‡] This procedure is in the manual (Achenbach & Rescorla, 2000)

Child's vulnerability. Parents provided information on the family's socioeconomic characteristics with a questionnaire. An index of cumulative risk was calculated based on household income (above or below the low income cut-off), family structure (two-parent or single-parent), mother's education at the time of the child's birth (less than a high school diploma or an high school diploma or more) and mother's age at the time of the child's birth (20 years and younger or 21 years and older). This index was used to determine if the child was exposed to no risk (non-vulnerable) or one, two, three or four risks (vulnerable) in his home environment.

2.3. Procedures

This quasi-experimental study adopted a 2 X 2 X 2 mixed-design, with the child's vulnerability and type of care as between-subject factors and child's age as a within-subject factor. At recruitment, when children were aged between 5 and 12 months, parents completed by telephone two questionnaires allowing to determine the child's type of care and vulnerability. Then, the family received a mailing of questionnaires about externalizing and internalizing behaviors of children when they were aged 2 and 4 years old.

3. Results

Two analyses of variance (ANOVAs) were conducted. First, we compared externalizing behaviors of vulnerable and non-vulnerable children in daycare and parental care at 2 and 4 years old. Second, we compared internalizing behaviors of vulnerable and non-vulnerable children in daycare and parental care at 2 and 4 years old. The significance level used in analyzes was set at $p < .05$ for main effects and at $p < 0.10$ for interaction effects, since they are more difficult to detect in our field (McClelland & Judd, 1993).

3.1. Descriptive data

Descriptive analyses are presented in Table 1. As shown, non-vulnerable children presented mean behavior scores in the normal range (between 28 and 59). Vulnerable children also presented mean behavior scores in the normal range, except for vulnerable 2-year-old children in daycare, who obtained internalizing behavior scores in the borderline range ($M = 62$, $SD = 4.82$).

Table 1. Descriptive statistics of externalizing and internalizing behaviors

	Non-vulnerable ($n = 53$)		Vulnerable ($n = 13$)	
	Daycare ($n = 39$) <i>M (SD)</i>	Parental care ($n = 14$) <i>M (SD)</i>	Daycare ($n = 6$) <i>M (SD)</i>	Parental care ($n = 7$) <i>M (SD)</i>
Externalizing				
2 years old	48.03 (8.09)	47.36 (7.84)	55.17 (7.99)	54.00 (8.62)
4 years old	48.31 (8.68)	45.43 (8.37)	48.33 (13.28)	59.71 (10.47)
Internalizing				
2 years old	48.97 (8.85)	46.93 (8.51)	62.00 (4.82)	47.00 (5.77)
4 years old	48.26 (10.72)	46.86 (8.50)	58.33 (7.55)	53.71 (9.01)

3.2. Daycare attendance and externalizing behaviors

A first ANOVA compared externalizing behaviors between-subjects (non-vulnerable and vulnerable; daycare and parental care) and within-subjects (2 and 4 years old). The results are presented in Table 2.

Table 2. ANOVA results for main and interaction effects of child's type of care, vulnerability and age on externalizing behaviors

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Between-subjects						
Type of care (T)	1	54.66	54.66	0.46	0.50	0.64
Vulnerability (V)	1	970.68	970.68	8.25	0.01*	11.35
T X V	1	232.90	232.90	1.98	0.16	2.72
Error 1	62	7295.98	117.68			
Within-subject						
Age (A)	1	9.41	9.41	0.28	0.60	0.38
A X T	1	131.40	131.40	3.95	0.05*	5.31
A X V	1	0.34	0.34	0.01	0.92	0.01
A X T X V	1	267.84	267.84	8.05	0.01*	10.83
Error 2	62	2063.54	33.28			

†*p* < 0.10; **p* < 0.05

The three-way ANOVA for externalizing behaviors yielded a significant interaction between child's age and type of care and vulnerability, $F(1, 62) = 8.05, p = .01$, which explained 10.83% of the externalizing behaviors variance. This suggested that the effect of type of care on externalizing behaviors at 2 and 4 years old depended on child's vulnerability. A simple effects analysis for child's vulnerability indicated that mean externalizing behaviors at 2 and 4 years old for children in the two types of care were significantly different for vulnerable children, $F(1, 11) = 6.96, p = .02, d = 38.74$, and not for non-vulnerable children, $F(1, 51) = 0.77, p = .38$ (see Figure 1).

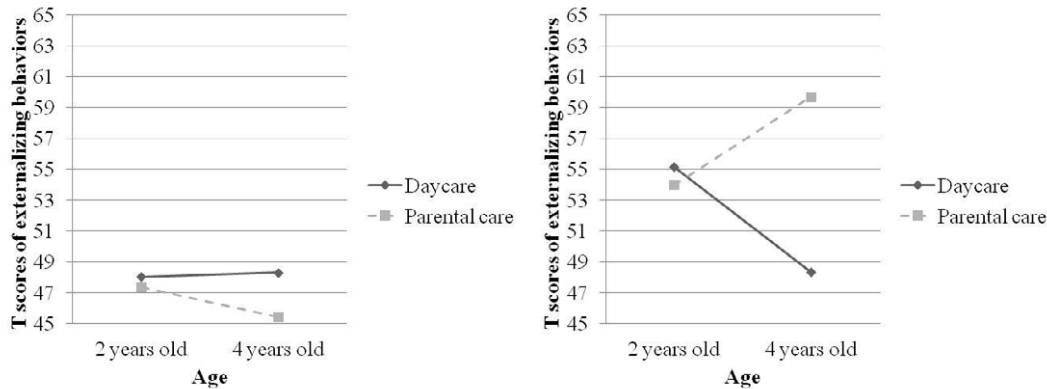


Fig 1. a) For non-vulnerable children, T-scores of externalizing behaviors at 2 and 4 years old for children in two types of care; b) For vulnerable children, T-scores of externalizing behaviors at 2 and 4 years old for children in two types of care

Specifically, a further simple effects analysis for child's age among vulnerable children indicated that daycare and parental care were associated with the same rates of externalizing behaviors at 2 years old, $F(1, 12) = 0.06, p = .81$. Then attending daycare was associated with a reduction in externalizing behaviors between 2 and 4 years old, while staying under parental care was associated with an increase, $F(1, 11) = 6.27, p = .03$. Since an interaction effect has been found, main effects were not assessed.

In sum, for non-vulnerable children, both daycare attendance and parental care were associated with similar low rates of externalizing behaviors at 2 and 4 years old. However, vulnerable children appeared to benefit more from daycare attendance since they showed a reduction of externalizing behaviors between 2 and 4 years old compared to children under parental care who showed an increase.

3.3. Daycare attendance and internalizing behaviors

Another ANOVA compared internalizing behaviors between-subjects (non-vulnerable and vulnerable; daycare and parental care) and within-subjects (2 and 4 years old). The results are presented in Table 3.

Table 3. ANOVA results for main and interaction effects of type of care, vulnerability and age on internalizing behaviors

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Between-subjects						
Type of care (T)	1	654.16	654.16	5.05	0.03*	6.47
Vulnerability (V)	1	1109.06	1109.06	8.57	0.01*	10.97
T X V	1	321.70	321.70	2.48	0.12	3.18
Error 1	62	8028.02	129.48			
Within-subject						
Age (A)	1	6.27	6.27	0.17	0.68	0.24
A X T	1	149.54	149.54	4.06	0.05*	5.80
A X V	1	18.11	18.11	0.49	0.49	0.70
A X T X V	1	116.53	116.53	3.16	0.08 [†]	4.52
Error 2	62	2285.79	36.87			

[†] $p < 0.10$; * $p < 0.05$

The three-way ANOVA for internalizing behaviors yielded a significant interaction between child' age and type of care and vulnerability, $F(1, 62) = 3.16, p = .08$, which explained 4.52% of the internalizing behaviors variance. This suggested that the effect of type of care on internalizing behaviors at 2 and 4 years old depended on child's vulnerability. A simple effects analysis for child's vulnerability indicated that the means of internalizing behaviors at 2 and 4 years old for children in the two types of care were significantly different for vulnerable children, $F(1,11) = 7.24, p = .02, d = 39.70$, and not for non-vulnerable children, $F(1,51) = 0.05, p = .82$ (see Figure 2).

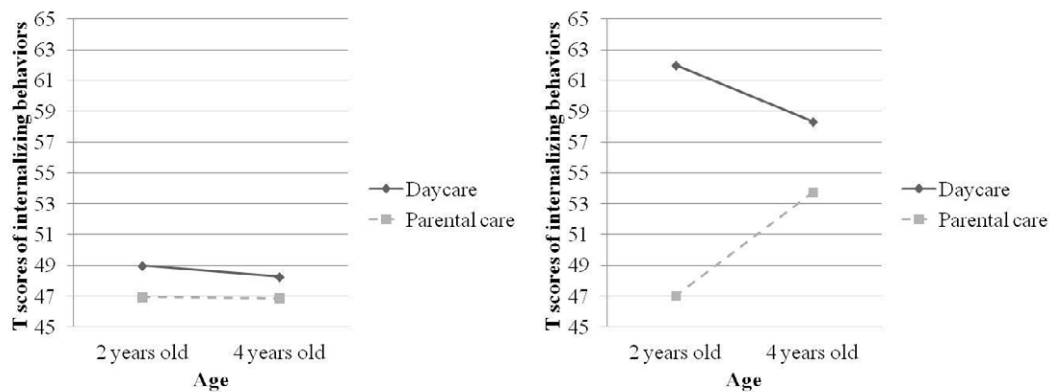


Fig 2. a) For non-vulnerable children, T-scores of internalizing behaviors at 2 and 4 years old for children in two types of care; b) For vulnerable children, T-scores of internalizing behaviors at 2 and 4 years old for children in two types of care

Further analysis of simple effects of age among vulnerable children indicated that those in daycare started with higher internalizing behavior scores at 2 years old compared to those under parental care, $F(1,12) = 25.30, p = .00$. Then, children in daycare showed a reduction in scores between 2 and 4 years old, while those under parental care showed an increase. Thus, differences of internalizing behavior scores are

no longer present at 4 years old, $F(1,11) = 1.40, p = .26$. Since an interaction effect have been found, main effects were not explored.

In summary, for non-vulnerable children, both daycare attendance and parental care were associated with similar low rate of internalizing behaviors at 2 and 4 years old. However, vulnerable children in daycare obtained higher internalizing behaviors but attendance in daycare appears to be associated with their reduction, while remaining under parental care appears to be associated with their increase.

4. Discussion

The current study investigated externalizing and internalizing behaviors of 2- and 4-year-old children, non-vulnerable and vulnerable, attending daycare from their first year of life compare to those of children under parental care during the same period. Our results indicated that the effect of type of care on children' externalizing and internalizing behaviors from 2- to 4- year-old was moderated by children' vulnerability. More specifically, significant differences between externalizing and internalizing behaviors of 2- and 4- years-old children attending daycare or staying under parental care were only found among vulnerable children, which is consistent with previous research (Borge, et al., 2004; Côté, et al., 2008; Peng & Robins, 2010). For externalizing behaviors, at 2 years old, vulnerable children in either daycare or parental care manifested the same rate of externalizing behaviors. Afterward, externalizing behavior scores decreased in children attending daycare and were within the normal range at 4 years old, while the scores of children under parental care significantly increased close to borderline range. For internalizing behaviors, compared to parental care, daycare attendance was associated with significantly higher scores at 2 years old, in the borderline range. However, differences were no longer present at 4 years old because the scores of children attending daycare decreased, while those of children under parental care increased.

As reported by Peng and Robin (2010), daycare attendance could be particularly beneficial for reducing externalizing and internalizing behaviors of vulnerable children. Recent theories, such as ecosystemic models of development (Bronfenbrenner, 1979), indicate that behaviors result from interactions between the child and his environment. For example, as a result of certain features of the underprivileged home environment (e.g., parental stress, maternal depression symptoms, etc.), children tend to be more exposed to harsh parenting and inconsistent discipline (Dodge, Greenberg, & Malone, 2008). They may then react to those negative socialization processes in such a way that may result in more negative discipline from parents and exacerbation of children's externalizing and internalizing behaviors. So, for vulnerable children under parental care, we may wonder if manifestation of externalizing and internalizing behaviors will continue to increase—which would be worrisome—as some studies found a certain stability between behaviors measured in preschool and those in kindergarten (Hartman, 2009; Kerr, et al., 2007).

For vulnerable children attending daycares, this educational experience appears to intervene in that cycle of interactions and act as a compensative environment, probably providing positive, consistent and developmentally appropriate socialization opportunities. Educators are expected to adopt practices that create a high-quality physical setting, including space for children to withdraw themselves from stimulation if needed (Maxwell, 2007), naturally create smaller groups of peers during play time, which contribute to lower noise level and offer enough material to prevent conflict, etc. (Gouvernement du Québec, 2007). Furthermore, they should provide a high-quality schedule, balancing high- and low-energy activities, based on children's interests and appropriate to their developmental level (Gouvernement du Québec, 2007), flexible to follow children's ideas and lead, yet still structured enough

to ensure everyone has something to do and knows what to expect (Curby, Grimm, & Pianta, 2010). Then, from the physical setting and schedule creating a warm and relax atmosphere, the educators should be able to interact positively with children and intervene more easily for those in need (Burchinal, Vandergrift, Pianta, & Mashburn, 2010; Howes et al., 2008). But is it always the case?

Our results underlined the borderline scores of internalizing behaviors of children in daycare at 2 years old preceding their reduction into normal range at 4 years old, which could suggest that behavioral benefits associated with daycare attendance are not yet present at 2 years-old. Daycare educators might not be as familiar with the internalizing behaviors of vulnerable 2-year-old as they are with externalizing behaviors, so they may be less able to assist toddlers in need. Perhaps educators could be more skilled to detect children' difficulties and to organize a physical setting and a schedule that allow appropriate intervention on externalizing behavior early on and on internalizing behaviors as children get older.

As for the majority of children attending Quebec's daycares that is non-vulnerable, our results indicated no differences between the rates of externalizing and internalizing behaviors from 2 to 4 years old among children attending daycare or staying under parental care. One of the key objectives of the Québec non-profit daycare network being to foster child socialization by offering a first experience in an educative setting and in a group context (Gouvernement du Québec, 2007), our results are good news for children in daycare since they don't appear to be more at risk of presenting behavioral problems, a potential detrimental effect that others have reported previously (Hickman, 2006; Loeb, et al., 2007; Van Beijsterveldt, et al., 2005). This positive result may be a particularity of Quebec's network of regulated daycares where settings are publicly subsidies, regulated, monitored, share a common educational program, etc., which could be associated with high quality services offered in regulated centers and homes daycares. Indeed, countries regulating early childhood education like Sweden tend to offer homogeneous higher quality services to children and their families (Sheridan & Schuster, 2001). In parallel, previous research have indicated that high quality educational experiences seem to be associated with lesser rates of externalizing and internalizing behaviors (Crockenberg & Leerkes, 2005; NICHD Early Child Care Research Network, 1998; Vandell, Belsky, Burchinal, Steinberg, & Vandergrift, 2010). Hence, considering the quality of Quebec's educational daycares could help understand even more our results. Moreover, we might have to pay attention to center-based and family-based daycares separately since they seem to present different quality level (Bigras, et al., 2010).

Since educational practices adopted by educators have not been measured in this study, our hypotheses regarding their association with vulnerable and non-vulnerable children' externalizing and internalizing behavior still need to be confirmed. Thus, further research is necessary to understand practices associated to externalizing and, mainly, internalizing behaviors of children attending daycare. In that regards, characteristics of the educational settings, such as its quality and type, appear to be an avenue for exploration in order to better understand features of the educational experiences that might be essential to implement in order to insure normal rates of externalizing and internalizing behaviors among non-vulnerable and vulnerable children attending Quebec's daycare before school entry.

5. Limitations and conclusion

Even though this study has innovated by presenting new results, such as scores of externalizing and internalizing behaviors in children as young as 2 years old, scores of children in the same type of care since their first year of life and the specific contribution of educational non-profit daycares, it also has some limitations. First, sample size and effect sizes are small and results should be interpreted with

caution. Nevertheless, such exploratory results were needed since data regarding the specific influence of Québec's regulated educational daycare on children's behavioral outcomes were not yet available, while an important number of children are attending them. Thus, we encourage further studies to replicate ours using a larger sample size. Also, it's important to keep in mind that our study adopted a quasi-experimental design and that, while trying to limit alternative explanation, omitted variables may have played a role. Some of these variables may be important to consider in future works, such as the type of care (centers-based and homes-based daycare) and their respective level of quality mentioned above.

In conclusion, this study suggests that, on the one hand, daycare attendance is associated with the same normal externalizing and internalizing behaviors scores as parental care from 2 to 4 years of age in non-vulnerable children. On the other hand, for vulnerable children, daycare attendance is associated with a significant reduction in externalizing and internalizing behaviors from 2 to 4 years of age, but internalizing behavior scores still remain higher. These are the first results concerning behaviors of young children attending Québec's regulated non-profit educational daycares. Now that we know that most children attending those setting during early childhood are manifesting normal rates of externalizing and internalizing behaviors just before school entry, further work should explore features of the educational experiences offer to infants, toddlers and preschoolers that contributed to attain those normal rates. Doing so will increase our knowledge about the essential practices educators need to master and implement correctly so that the socialization goal of the daycare network is fully reached for all children and all types of behaviors.

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