

Childcare centre for work efficiency of employed parents: perception analysis for business prospects

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Abstract

Purpose – This study aims to explore whether the working parents' perception about the necessity of childcare centres for their work efficiency is associated with their anxieties and concerns related to their dual responsibilities, i.e. providing proper parental childcare and maintaining work efficiency.

Design/methodology/approach – A sample of 100 employed parents, from the Jashore region of Bangladesh, was surveyed, and descriptive and inferential statistics were used to analyze the data.

Findings – It was revealed that there is a strong association between the perceived negative impact on job performance, childcare, child development, work efficiency and perceived need for a childcare centre.

Research limitations/implications – The limitation of this study is that it was confined to Jashore University of Science and Technology. The results may differ from those of the study conducted outside this study area and the methodology used here.

Practical implications – This study has significant practical implications for employers, childcare service providers and policy makers, especially in Bangladesh. The employers will be able to understand the demand for childcare services centres among the employed parents in respective organizations. It will draw attention of employers of knowledge intensive industries and grants commission to the issue of conflict of work and childcare-related responsibilities of employed parents. This will also make employers conscious about the dilemma that is undergone by employed parents motivating them to take actions for minimizing such conflicts to ensure better job performance of working parents.

Social implications – Based on this study, childcare providers and other policy makers will be able to ascertain the potential size of the childcare market and determine the requirement for investment in childcare-related human resources development. As the work and childcare responsibilities compete for limited time of working parents, either childcare or job performance suffers. This causes concerns, anxieties or remorse, which again hampers the job performance further. Therefore, this study may motivate the university authority around the world, specifically those in Bangladesh, to provide childcare facilities for its faculties, students and other employees.

Originality/value – This study contributes to the literature on growing demand for centre-based childcare services in an emerging economy context. It provides evidence of high demand for on- and off-site childcare centres to enhance work efficiency of working parents.

Keywords Bangladesh, Childcare, Child development, Working parents, Work efficiency

Paper type Research paper

Introduction

Human beings require the utmost attention and care during their early childhood. This period serves as the foundation for all subsequent learning and will prepare them to be effective



learners. According to the United Nations International Children's Emergency Fund (UNICEF), the first eight years of a child's life are marked by physical and mental changes, whereas the first three years are critical because a child's brain is at its most malleable, versatile and experiences significant growth during this period (Brooks-Gunn *et al.*, 2002).

Brain development is exceptionally responsive to experience, and a child who has been subjected to neglect or violence is more likely to have cognitive, behavioural or emotional disorders. Therefore, adequate childcare and good nurturing, including healthcare, nourishment, interaction stimulation and emotional support, have a significant impact on development and learning (Engle *et al.*, 1997).

Economic growth, a prerequisite of a nation's development, requires both men and women in the workforce. One of the most significant social transformations of the second half of the 20th century entailed a major inflow of women into the paid labour force, which culminated in the establishment of childcare centres in most European cities, with the first in Great Britain in 1860 (Pettit and Hook, 2005). Non-parent childcare for infants under 12 months is becoming more common in many countries due to parental work commitments (Brownlee *et al.*, 2007). With the advancement of women's education, the number of women working in Bangladesh is also growing. Growth in female employment due to massive job creation in the urban industrial sectors has accelerated Bangladesh's economic growth (Kotikula *et al.*, 2019). The female workforce participation rate was over 36.37% in 2019 (Islam and Khan, 2015).

Women have been traditionally in charge of childcare and domestic chores related with their roles as mothers and wives. Nowadays working women have to fulfil their job responsibilities as well (Biernat and Wortman, 1991). Performing tasks as both moms, spouses and employees poses some significant obstacles to them, their families and their organizations. Several researchers observed that providing care to family members at home has become an extensive work-family dilemma in the 21st century (Smith, 2004; Dorio *et al.*, 2008; Allen *et al.*, 2000; Jayita and Murali, 2009; Carr *et al.*, 1998; De Cieri *et al.*, 2005). This problem of work-life conflict has been observed to be prevalent among working mothers (Franks *et al.*, 2006; Bakker *et al.*, 2010; Mauno *et al.*, 2006; Edwards and Rothbard, 2000; Greenhaus and Beutell, 1985).

This study aims to provide perception based evidence on the effect of work-childcare conflict and the role of childcare centres in mitigating such conflict and improving working parents' mental well-being and job performance.

Several studies have examined the relationship between employee work performance and work and non-institutional work role demands (such as parental care). Some have claimed that the interaction of non-work demands and employee performance has a detrimental link (Dorio *et al.*, 2008; Allen *et al.*, 2000; Damoah and Ntsiful, 2015). The obstacles faced by working mothers at home due to childcare have a negative impact on work performance in a conventional organizational structure (Dorio *et al.*, 2008; Mark and Smith, 2008; Haun *et al.*, 2011). Employed women with the responsibilities for childcare may arrive at work exhausted or distracted, making it harder to perform (Damoah and Ntsiful, 2015; Meier *et al.*, 2014; Dorio *et al.*, 2008; Allen *et al.*, 2000). These obstacles are unavoidable (Smith, 2004); so, organizational management should be aware of a mother who takes on dual duties as a mother and a worker.

Every nation's development and achievement of Sustainable Development Goals (United Nations) are heavily reliant on a future generation that is physically, emotionally, cognitively and socially competent. As a result, a childcare centres are required for children's cognitive and physical development. Childcare centres are the best substitute because they accelerate the child's cognitive development while neutralizing the negative impact of maternal employment (Felfe *et al.*, 2015; Blau and Currie, 2006; Baker, 2011; Almond and Currie, 2011; Ruhm and Waldfogel, 2012; Drange and Rønning, 2020). As a result, the World Health Organization (WHO) and UNICEF created Care for Child Development (CCD) based on the child survival agenda to promote early children's psychological development. The

government of Bangladesh also passed the “Child Daycare Centre Bill 2021” on 16 June 2021. Maternal employment and child care attendance are determined by endogenous factors (Del Boca *et al.*, 2016). As a result, non-parent childcare is primarily the result of parental work commitments (Brownlee *et al.*, 2007).

Existing literature suggests that childcare services on and off campuses, e.g. in the USA, Australia (Ajayi *et al.*, 2022; Rubin and Wright, 2017) have been beneficial for student-parents and researchers. A study in the context of Bangladesh found that on-site childcare services have significant positive impact on female knowledge worker productivity and commitment (Chowdhury, 2018). There is a large number of research works that highlighted the effects of maternal employment on child physical and cognitive development (Desai *et al.*, 1989; Bayard and Brooks-Gunn, 1991; Blau and Grossberg, 1992; Vandell and Ramanan, 1992; Ermisch and Francesconi, 2005; Felfe *et al.*, 2015; Blau and Currie, 2006; Baker, 2011; Almond and Currie, 2011; Ruhm and Waldfogel, 2012; Drange and Rønning, 2020), childcare demand and employee performance (Damoah and Ntsiful, 2015) and parents employment and children well-being (Heinrich, 2014). However, there is a deficiency in research on the demand for childcare centres to ensure working mothers’ work efficiency. Therefore, this study aims to analyze the working parents’ perception of the requirements of childcare centres to ensure parental work performance.

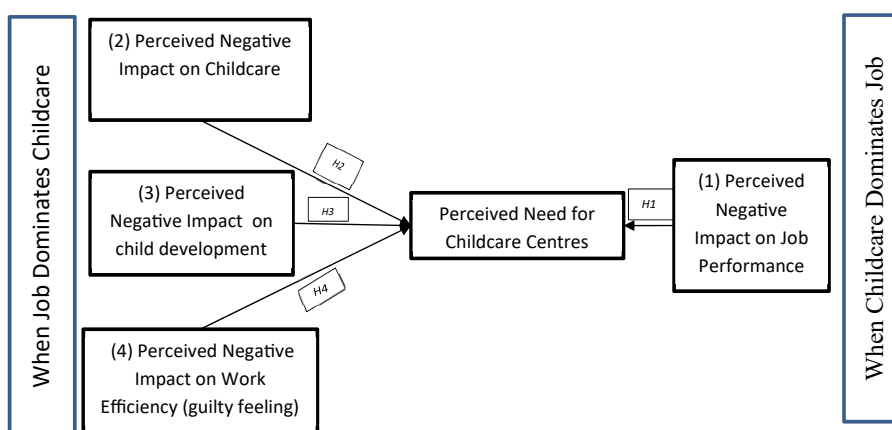
Conceptual framework

The existing studies emphasized on the problem of work–life balance for the working mothers (Franks *et al.*, 2006; Bakker *et al.*, 2010; Mauno *et al.*, 2006; Edwards and Rothbard, 2000; Greenhaus and Beutell, 1985); the dilemma of stress due to parental care and inefficiency at the work place faced by the working mothers (Jayita and Murali, 2009; Dorio *et al.*, 2008; Mark and Smith, 2008; Haun *et al.*, 2011); less parental attachment and interaction with child of employed parents (Desai *et al.*, 1989; Bayard and Brooks-Gunn, 1991; Gupta and Simonsen, 2010; Havnes and Mogstad, 2015); extensive work–family dilemma faced by employed mothers (Smith, 2004; Dorio *et al.*, 2008; Allen *et al.*, 2000; Jayita and Murali, 2009; Carr *et al.*, 1998; De Cieri *et al.*, 2005); the effects of maternal employment on child physical and cognitive development (Desai *et al.*, 1989; Bayard and Brooks-Gunn, 1991; Blau and Grossberg, 1992; Vandell and Ramanan, 1992; Ermisch and Francesconi, 2005; Felfe *et al.*, 2015; Blau and Currie, 2006; Baker, 2011; Almond and Currie, 2011; Ruhm and Waldfogel, 2012; Drange and Rønning, 2020); and childcare centres as the substitute for the child’s cognitive development (Felfe *et al.*, 2015; Blau and Currie, 2006; Baker, 2011; Almond and Currie, 2011; Ruhm and Waldfogel, 2012; Drange and Rønning, 2020). The following Figure 1 represents the structural relationship of the study:

Hypotheses development

Ensuring childcare hampers job performance

When parents’ work is designed and scheduled to ensure proper care for children hampers job performance, they will use the services of childcare providers, given the services are affordable and dependable. Studies find that mothers’ status and nature of work (employed/unemployed, high/low flexibility, part/full-time) determine their childcare choices (Connelly and Kimmel, 2003; Horwood *et al.*, 2021; Legazpe and Davia, 2019). For example, it has been argued that women with full-time employment are more likely to choose centre-based childcare (Connelly and Kimmel, 2003). As a result, as more women, particularly mothers, work full-time, the demand for centre care will rise (Connelly and Kimmel, 2003) because working mothers confront childcare dilemmas (Jayita and Murali, 2009). Working women’s stress levels rise due to childcare duties, affecting their work relationships (Jayita and Murali, 2009).



Furthermore, when children become ill unexpectedly, the problem is exacerbated, as women are typically expected to care for sick children (Better Health Channel, 2008). One study found that energy, time and psychological well-being (mind) required for work performance were also needed to manage the obstacles connected with childcare, resulting in poor performance of working mothers (Damoah and Ntsiful, 2015). However, team support was discovered to moderate the negative association between childcare responsibilities and working moms' work performance (Damoah and Ntsiful, 2015). Although demands of childcare at home hamper the working mother's performance at work, if there is a high level of team support, the working mother's performance is not severely impacted because team support creates synergy and promotes cooperation, leveraging the team members' strengths and shadowing the working mother's weaknesses (Jones *et al.*, 2007). So, other studies found that childcare responsibilities harm working moms' work performance because they create exhaustion, loss of concentration, and loss of productive time (Meier *et al.*, 2014; Dorio *et al.*, 2008; Allen *et al.*, 2000; Jones *et al.*, 2007). And so, the following hypothesis has been developed:

- H1. There is a strong association between Perception 1 (ensuring proper parental childcare hampers the job performance of employed parents) and Perception 5 (childcare centre is essential for enhancing the work efficiency of the working parents in the present socioeconomic condition).

Guilty feeling due to negative impact on childcare

When a dutiful father/mother has to deprive his/her children of proper care to fulfil his/her job responsibilities, he/she must feel remorse for this, which will, in turn, make him/her avail centre-based childcare services (if available), especially if he/she wants to ensure his/her employment. Parents are the first teachers in a child's life and have an important influence in shaping their adult lives. This parent-child interaction has both positive and negative effects due to the development of the family style where both parents work. Parents have more disposable income to spend on their children but less time to engage with them properly (Nair, 2018). Desai *et al.* (1989), Bayard and Brooks-Gunn (1991), Gupta and Simonsen (2010) and Havnes and Mogstad (2015) expressed concern about moms spending less time with their children due to the enormous migration of women into the workforce. Research has found

that working mothers dedicate less time to their children than non-working mothers (Del Boca *et al.*, 2016). As a result, the children's cognitive development is impeded because, in early life, both parents' time inputs are critical for cognitive growth (Del Boca *et al.*, 2014). One of the studies found that almost all working parents (81%) stated that their failure to offer adequate parental care harmed their children's cognitive development, and 84% believed that their children's physical effect would be harmed if they failed to provide proper parental care (Hasan and Moon, 2022). Another research has found that maternal employment negatively impacts children's language test scores (cognitive development) (Desai *et al.*, 1989; Bayard and Brooks-Gunn, 1991). There is also evidence that working women's work performance has also been influenced by childcare duties, including exhaustion, lack of concentration and lost useful time (Meier *et al.*, 2014). An employed mother may not fully recuperate the energy spent during non-work activities (childcare) at home, hampering her work performance at the organization (Fritz *et al.*, 2010). Carlson and Frone (2003) found that employees (i.e. working mothers) become mentally abstracted while thinking about childcare obligations. Hence, this study hypothesizes that:

- H2. There is a strong association between Perception 2 (dutiful working parents are stricken by remorse for their failure in parental childcare) and Perception 5 (childcare centre is essential for enhancing the work efficiency of the working parents in the present socioeconomic condition).

Anxiety about negative effect on child development

Working parents who feel anxious about their children's development are more likely to feel the need for child care centres. The higher the level of anxiety felt by working parents, the higher the probability that they have had to leave their children with caregivers lacking proper knowledge about the development process of children. Desai *et al.* (1989), Bayard and Brooks-Gunn (1991), Gupta and Simonsen (2010) and Havnes and Mogstad (2015) sparked worries about moms spending less time with their children as a result of the significant influx of women into the workforce, and for this reason, they have to invest a substantial amount of time in their workplaces to be productive (Hasan and Moon, 2022). Many studies have revealed that early childhood care has a significant impact on children's cognitive and non-cognitive capacities for later life since brain development, language acquisition and early learning are essential for later learning during infancy (Carneiro and Heckman, 2003; Heckman *et al.*, 2005; Cunha and Heckman, 2006). If mothers do not provide adequate parenting, their children will experience delayed physical and neurological development (Holt and Mikati, 2011), slow language skill development (Baydar *et al.*, 2014), childhood illness and poor infant growth (Rahman *et al.*, 2004; Cozolino, 2006; Surkan *et al.*, 2011). Several studies divulged that most parents believe that a child's development is affected by a lack of sufficient parental attention (Del Boca *et al.*, 2014; Desai *et al.*, 1989; Bayard and Brooks-Gunn, 1991; Carneiro and Heckman, 2003; Heckman *et al.*, 2005; Cunha and Heckman, 2006; Holt and Mikati, 2011; Baydar *et al.*, 2014; Rahman *et al.*, 2004; Cozolino, 2006; Surkan *et al.*, 2011; Hasan and Moon, 2022). Study shows that informal childcare contributes less to children's development than parents and high-quality formal childcare (Del Boca, 2015). Centre-based childcare reduces anxiety among working parents. Thus, the following hypothesis has been developed:

- H3. There is a strong association between Perception 3 (employed parents are anxious about their child's development) and Perception 5 (childcare centre is essential for enhancing the work efficiency of the working parents in the present socioeconomic condition).

Compunction about childcare destroys work efficiency

Parents who feel and believe that their work efficiency is reduced due to their anxiety about their children are more likely to feel the need for formal centres for childcare. Research shows that the higher the childcare responsibility of working mothers, the lower their psychological well-being after they join work (Ozer, 1995). Moreover, childcare responsibilities are a significant reason for lower work–life balance in different contexts (Hayman and Rasmussen, 2013; Tasnim *et al.*, 2017). Several studies have been conducted to study the relationship between work and non-work role demands (e.g. childcare duties) and employee work performance. Some have hypothesized that the interaction of non-work responsibilities and employee commitment has a detrimental link (Dorio *et al.*, 2008; Allen *et al.*, 2000). Even if an employee has high work expectations, they may not be met because the energy, time and psychological well-being (mind) required to meet these expectations are diverted to meet the person's non-work obligations such as childcare. In this regard, Robert and Hockey (1997) argue that non-work demands consume a significant amount of time and energy that would otherwise be spent at work. Thus, the following hypothesis has been developed:

- H4. There is a strong association between Perception 4 (compunction about failing in parental childcare destruct work efficiency) and Perception 5 (childcare centre is essential for enhancing the work efficiency of the working parents in the present socioeconomic condition).

Materials and methodology*Sources of data*

This research work was done based on primary data. The data were collected through a sample survey using a structured questionnaire.

Sampling

In this study the employed parents' perception of child development is analyzed to assess the business prospects childcare centre. It is based on a survey of employees of a single organization (Jashore University of Science and Technology) of Jashore District (administrative unit). The parents of all the 64 districts (administrative units) of Bangladesh who are employed experience almost the same socioeconomic conditions. So, the employed parents from any organization of any district can represent the employed parents of the whole of Bangladesh. Nevertheless, Jashore University of Science and Technology is one of the biggest organizations in Bangladesh, especially in Jashore, which employs employees with diverse identities. Moreover, it automatically controls for cultural, leadership and other organizational differences that would arise if employees of multiple organizations were surveyed.

In determining the population of the study, two criteria were considered: (1) female employees and male employees whose spouses are also employed and (2) who have a child/children or expecting a child shortly.

There are 659 employees (teachers, officers and subordinates). Among them, 200 employees fulfil the above criteria. The minimum sample size was determined using the following formula (Saunders *et al.*, 2005):

$$n = \frac{Z^2 p(1-p)}{\epsilon^2} = \frac{Z^2 pq}{\epsilon^2},$$

Here, n = sample size, Z = tabulated value = 1.96 (for large sample at 5% level of significance), p = proportion of success, $q = 1 - p$ = proportion of failure, ϵ = margin of error = 0.05. Based on this formula, the sample should be 132 when the population is 200. From the minimum sample size, the adjusted minimum sample size was determined using the following formula (Saunders *et al.*, 2005):

$$n^i = \frac{n}{1 + \left(\frac{n}{N}\right)}$$

Here n^i = Adjusted sample size, n = minimum sample size and N = population size. The adjusted minimum sample size of 80 was determined based on this formula. But, to improve the research work, the researcher determined a sample of 100 respondents from the study area.

Data collection

A sample of 100 employees was surveyed from June to September 2020 to collect primary data pertinent to the study objective.

Data analysis

Frequency distribution and chi-square tests were used to analyze the data. Five statements were selected to test the perception of the working parents' regarding the development of their children, the effect on work and the importance of childcare centres as the substitute for parental care. The five statements are as follows:

- (i) Ensuring proper parental childcare hampers job performance of employed parents {Perception 1 (P_1)};
- (ii) Dutiful working parents are stricken by remorse for their failure in parental child care {Perception 2 (P_2)};
- (iii) Employed parents remain anxious about their child development {Perception 3 (P_3)};
- (iv) Compunction about failing in parental childcare destruct work efficiency {Perception 4 (P_4)}; and
- (v) Childcare centre is essential for enhancing work efficiency of the working parents in the present socioeconomic condition {Perception 5 (P_5)}.

Each of the respondents was questioned based on the five statements. Every "yes" response was coded "1", and "no" response was coded "0". Firstly, the first four statements/perceptions (P_1 , P_2 , P_3 , P_4) were the dependent variables, and frequency distribution was made based on the respondents' responses on the four perceptions. Then, it was tried to see whether there was any association between the perceptions (P_1 , P_2 , P_3 , P_4) and the independent demographic variables (*age, income, assistant, no. of the children, gender, brought-up area, residence and family type*) through chi-square test. Then, the four perceptions were considered as independent variables, and an effort was made to see the association between the first four perceptions (P_1 , P_2 , P_3 , P_4) and the fifth perception (P_5) (child care centre is essential for enhancing work efficiency of the working parents in the present socioeconomic condition) using chi-square test.

Lastly, the perceptions were converted into two-point (Yes, coded "1"; and No, coded "0") Likert scale for binary logistic regression to measure the degree of effects of P_1 , P_2 , P_3 and P_4 on P_5 . P_5 (Y) was treated as the dependent variable in the binary logistic regression model. The dependent variable was classified in the following manner:

$$Y = \begin{cases} 0, & \text{no,} \\ 1, & \text{yes,} \end{cases}$$

Statistical Package for Social Sciences software version 20.0 (SPSS Inc., Chicago, IL, USA) was used for all the statistical analysis.

Results

At first, a descriptive analysis was performed on the socioeconomic characteristics of the respondents, and it was seen that almost half of the respondents (48%) were working mothers (Table 1). More than half of the respondents were brought up in rural areas, but almost half lived in urban areas (Table 1). This study found that most respondents (66%) belonged to nuclear families. A good number of working parents (32%) had more than one child. In the context of the socioeconomic condition of Bangladesh, most of the respondents had substantial monthly income. More than half of the respondents (52%) had their assistants at home to take care of their children (Table 1).

This study also revealed that most of the respondents (75%) believed that their job performance is hampered, if they try to ensure proper parental care to their children (Table 2).

Most of the working parents (74%) expressed that they feel guilty for failing to ensure parental childcare. This study also revealed that almost all the employed parents (80%) are anxious about their child's development, and 72% of the respondents believe that their compunction about failing in parental childcare destroy their work efficiency. Among the respondents, 77% believe that childcare centre is essential for enhancing their work efficiency at the workplace.

Then, it was explored whether there was any association between the perceptions (P_1 , P_2 , P_3 , P_4) and the independent demographic variables (*age, income, assistant, no. of the children*,

Variables	Categories	Frequency (<i>n</i>)	%
Gender	Male	48	48.0
	Female	52	52.0
Living area	Rural	41	41.0
	Urban	59	59.0
Family structure	Joint	34	34.0
	Nuclear	66	66.0
Age	Below 30	46	46.0
	Above 30	54	54.0
Income	Low	30	30.0
	Medium	41	41.0
	High	29	29.0
Assistance	Yes	52	52.0
	No	48	48.0
No. of children	No child	26	26.0
	There is child	74	74.0

Table 1.
Socioeconomic
characteristics of the
respondents ($N = 100$)

Perceptions		Types of response	
		Agreed	Disagreed
Perception 1	Ensuring proper parental childcare hampers the job performance of employed parents	75 (75.0%)	25 (25.0%)
Perception 2	Dutiful working parents are stricken by remorse for their failure in parental child care	74 (74.0%)	26 (26.0%)
Perception 3	Employed parents are anxious about their child's development	80 (80.0%)	20 (20.0%)
Perception 4	Compunction about failing in parental childcare destruct work efficiency	72 (72.0%)	28 (28.0%)
Perception 5	Childcare centre is essential for enhancing the work efficiency of the working parents in the present socio-economic condition	77 (77.0%)	23 (23.0%)

Table 2.
Distribution of the
respondents as per
their perception about
child
development ($N = 100$)

Note(s): N.B.: The figure within the parenthesis denotes the percentage

gender, brought-up area, residence and family type) through chi-square test. The result is depicted in Table 3.

And, it was seen that there is no association between the dependent variables (P_1, P_2, P_3, P_4) and independent variables (age, income, assistant, no. of the children, gender, brought-up area, residence and family type) ($p > 0.05$). That means, the employed parents made the four perceptions (P_1, P_2, P_3, P_4) irrespective of the age, income, family assistance, number of children, brought-up area, residence and family type.

Then, the four perceptions were considered as independent variables, and an effort was made to see the association between the first four perceptions (P_1, P_2, P_3, P_4) and the fifth perception (P_5) (child care centre is essential for enhancing work efficiency of the working parents in the present socioeconomic condition) using chi-square test, and the result is shown in Table 4.

It was revealed that P_1, P_2, P_3 and P_4 were associated with P_5 ($p < 0.05$), as depicted in Table 5.

Table 3.
Associations between perception about child development and socioeconomic factors ($N = 100$)

Factors		P_1			P_2			P_3			P_4		
		Yes	No	p -value	Yes	No	p -value	Yes	No	p -value	Yes	No	p -value
Gender	Male	36	12	1.00	32	16	0.108	37	11	0.484	32	16	0.245
	Female	39	13		42	10		43	9		40	12	
Living area	Rural	31	10	0.907	29	12	0.535	31	10	0.360	30	11	0.828
	Urban	44	15		45	14		49	10		42	17	
Family type	Joint	24	10	0.465	24	10	0.577	26	8	0.527	23	11	0.487
	Nuclear	51	15		50	16		54	12		49	17	
Age	Below 30	33	13	0.487	33	13	0.634	35	11	0.367	35	11	0.401
	Above 30	42	12		41	13		45	9		37	17	
Income	Low	23	7	0.351	24	6	0.691	24	6	0.889	21	9	0.796
	Medium	33	8		30	11		32	9		31	10	
Child	High	19	10		20	9		24	5		20	9	
	No child	16	10	0.065	17	9	0.244	19	7	0.305	19	7	0.887
Assistant	With child	59	15		57	17		61	13		53	21	
	Yes	42	10	0.166	40	12	0.488	43	9	0.484	34	18	0.125
	No	33	15		34	14		37	11		38	10	

Table 4.
Associations between P_1, P_2, P_3, P_4 and P_5 ($N = 100$)

Factors		P_1			P_2			P_3			P_4		
		No	Yes	p -value	No	Yes	p -value	No	Yes	p -value	No	Yes	p -value
P_5	No	15	5	0.000	16	4	0.000	16	4	0.000	11	9	0.000
	Yes	10	70		10	70		4	76		17	63	

Table 5.
Logistic regression predicting the likelihood of deserving P_5 ($N = 100$)

Characteristics		B	SE	Wald	df	Sig.	Exp(B)	95% CI for EXP(B)	
Step 1a	P_1	1.829	0.739	6.134	1	0.013	6.230	1.465	26.497
	P_2	-0.897	1.347	0.444	1	0.505	0.408	0.029	5.710
	P_3	3.446	1.327	6.739	1	0.009	31.361	2.326	422.877
	P_4	1.633	0.754	4.689	1	0.030	5.117	1.168	22.430
	Constant	-2.770	0.817	11.487	1	0.001	0.063		

Note(s): a. variable (s) entered on step 1: P_1, P_2, P_3 and P_4

Logistic regression was performed to ascertain the effects of P_1 , P_2 , P_3 and P_4 on the likelihood that participants make Perception 5 (P_5). The logistic regression model was statistically significant, $\chi^2(4) = 53.188$, $p < 0.0005$. The model explained 62.5% (Nagelkerke R^2) of the variance of P_5 and correctly classified 88.0% of cases. The participants, who perceive P_1 , P_3 and P_4 , were 6.230, 31.361 and 5.117 times, respectively, more likely to perceive P_5 than those who do not perceive P_1 , P_3 and P_4 .

Discussion

This study aimed to analyze the perception of working parents regarding the potential role of childcare centres in developing their child and their work efficiency. The results showed that all the hypotheses are supported. It has been found that most parents believe that providing proper parental childcare impedes the job performance of employed parents, so there is no way to deny the need for a childcare centre to improve the work efficiency of working parents in the current socioeconomic situation. Their perception (H1) goes in agreement with the findings of those of the research works conducted earlier (Damoah and Ntsiful, 2015; Jayita and Murali, 2009; Jones *et al.*, 2007; Meier *et al.*, 2014; Dorio *et al.*, 2008; Allen *et al.*, 2000; Connelly and Kimmel, 2003; Horwood *et al.*, 2021; Legazpe and Davia, 2019). This study also revealed that dutiful working parents are stricken by remorse for failing to provide parental childcare. As a result, they perceive the need for a childcare centre to serve their profession effectively. This perception (H2) resembles the findings of some of the former research works (Nair, 2018; Desai *et al.*, 1989; Bayard and Brooks-Gunn, 1991; Gupta and Simonsen, 2010; Havnes and Mogstad, 2015; Del Boca *et al.*, 2014, 2016; Desai *et al.*, 1989; Bayard and Brooks-Gunn, 1991; Hasan and Moon, 2022; Fritz *et al.*, 2010; Carlson and Frone, 2003; Meier *et al.*, 2014). This result could be explained by the fact that working parents face a dilemma, in that they cannot concentrate on their institutional job entirely, and as a result, their job efficiency suffers. This problem might have led them to this perception. It was seen that working parents who have anxiety for their child's development were more likely to feel the need for childcare centres. And, this perception (H3) complies with the former research findings (Desai *et al.*, 1989; Bayard and Brooks-Gunn, 1991; Gupta and Simonsen, 2010; Havnes and Mogstad, 2015; Hasan and Moon, 2022; Carneiro and Heckman, 2003; Heckman *et al.*, 2005; Cunha and Heckman, 2006; Holt and Mikati, 2011; Baydar *et al.*, 2014; Rahman *et al.*, 2004; Cozolino, 2006; Surkan *et al.*, 2011; Del Boca *et al.*, 2014). It can be seen that this apprehension about failing to provide parental childcare destroys work efficiency, which means that parents who feel and believe that their work efficiency is reduced due to their anxiety about their children are more likely to feel the need for formal childcare centres. This hypothesis (H4) also agrees with some other former research findings (Dorio *et al.*, 2008; Allen *et al.*, 2000; Hayman and Rasmussen, 2013; Tasnim *et al.*, 2017; Ozer, 1995; Robert and Hockey, 1997). As women's participation in the workforce grows, there is a greater need for childcare centres to care for both babies while ensuring parents' work efficiency.

Implications for theory and practice

This study focusses on perceived outcomes of work–childcare conflicts as the predictors of potential use of centre based childcare services, which was not addressed in any former study in the context of Bangladesh (Zhang *et al.*, 2020).

There has been significant progress in setting up on-site childcare facilities in some industries with high proportion of women in the workforce (e.g. readymade garments sector) in Bangladesh. However, many industries (especially knowledge-intensive industries, e.g. education and training, media, development, etc.) lag behind in this regard (Chowdhury, 2018). Therefore, this study documents the need for and future prospects of

on- or offsite childcare centres based on the study of employees of a university where there is a dominance of knowledge workers. Given a large number of public and private universities that employ a large number of employees and attract large number of students, including student-parents, this investigation will act as an important case study for tertiary education sector in Bangladesh.

This study has significant practical implications for employers, childcare service providers and policy makers, especially in Bangladesh. The employers (particularly large public and private universities) will be able to understand the demand for childcare services centres among the employed parents in respective organizations. This study will go a long way to draw attention of employers of knowledge-intensive industries, specifically university authorities and grants commission, to the issue of conflict of work and childcare-related responsibilities of employed parents. This will also make employers conscious about the dilemma that is undergone by employed parents, which will in turn motivate them to take actions for minimizing such conflicts to ensure better job performance of working parents.

Childcare providers, government and other policy makers will be able to ascertain the potential size of the childcare market and determine the requirement for investment and support in related areas, e.g. childcare-related human resources development, policy making, etc. More specifically, private sector entrepreneurs may come forward to establish childcare centres across Bangladesh as there is a gap in government initiatives (Chowdhury, 2018) and employees feel the need for such services.

As the work and childcare responsibilities compete for limited time of working parents, either childcare or job performance suffers. This causes concerns, anxieties or remorse, which again hampers the job performance further. A higher education institution like a university is a knowledge-intensive sector and mental well-being of its members has direct consequences on its output (Chowdhury, 2018). Therefore, universities around the world, specifically those in Bangladesh, should provide childcare facilities for its faculties, students and other employees.

Limitation and further research opportunities

The limitation of this study is that it was confined to Jashore University of Science and Technology. The results may differ from those of the study conducted outside this study area and the methodology used here. Although this study provides evidence on the demand/need for childcare centres on or off the university campuses in Bangladesh, further research should be conducted to develop a feasible model for childcare centres suitable, given the socioeconomic dynamics of these university campuses (Elsey *et al.*, 2020). Moreover, future research in this area should explore the prevalence of student-parents, especially student mothers, and their experience and requirements regarding childcare and breastfeeding in the tertiary educational institutions across Bangladesh (which is mostly ignored in existing literature).

Conclusion

This article investigates the perceptions of employed parents about the perceived effects of work–childcare conflicts and the resulting need for centre-based childcare services. Analyzed data from 100 respondents revealed that the stress, anxiety, compunction and remorse (perceived to be caused due to work–childcare conflict) in turn positively influence the respondents' perception about the necessity of childcare centres. Both chi-square test and logistic regression analysis give similar results. This study presents a strong case for on- or offsite childcare centres in the premises of large knowledge-intensive organizations, especially universities.

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Further reading

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