Campus perceptions on the granting of accommodations for student parents

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Abstract

While ample literature demonstrates the existence of stereotypes against pregnant and parenting people in workplace settings, research which directly examines student and faculty perceptions toward student parents on campus is sparse. Associations between stereotypes and behavioural outcomes have been found in a variety of populations using the Stereotype Content Model (SCM). The present study is the first to quantitatively situate the SCM in an academic, student-parent context. Parenthood status was not associated with warmth or competence ratings in student fathers but participants did perceive student mothers as higher in competence than non-parenting female students. This study found no significant associations among participant gender, support for accommodations and SCM ratings. Overall, these findings demonstrate that undergraduate students do not hold negative stereotypes against student parents, suggesting that they may consider all students, regardless of parental status or gender, to be part of their in-group. Future research should examine faculty perceptions toward student parents, as well as associations between these perceptions and passive/active harm/facilitation.

keywords: student parents, stereotype content model, accommodations, perceptions

Literature on student parents

Between 1976 and 2005, student parents made up between 11% and 16% of all students enrolled in post-secondary education (Statistics Canada as cited by van Rhijn et al., 2011). According to the Canadian University Survey Consortium, 12% of graduating undergraduate students at the University of Regina had children (2021). Despite the prevalence of this population, literature on these groups is sparse. Currently, the literature on student-parents falls into two distinct themes. There are a variety of studies which explore the experiences of this population as perceived by the student parents themselves. These studies reveal an abundance of concerns and barriers faced by student-parents. According to Bryan et al, 2019 (as cited by Contreras-Mendez & Cruse, 2021), students who have children are nearly twice as likely to leave college before graduating as students who do not have children. The other group of studies, although even more sparse than the former, seeks to explore the accommodations which are available to address barriers that contribute to this discrepancy. These studies will be reviewed below.

Lived-Experiences of Student Parents in Academia

It is well-established that student parents experience a large amount of stress. Much of the existing literature seeks to specifically determine what the lived experiences of student parents entail (Fehr, 2013; Voisin, 2016; van Rhijn et al., 2011). This person centred approach tends to be highly qualitative in nature, and an abundance of insight has been gathered from this camp of studies. The student parent population experiences a wide array of barriers that make attending and completing post-secondary education more challenging for them than for traditional, childless, students (van Rhijn et al., 2011). There are high costs,

both monetary and time related, associated with both post-secondary education and child-rearing. Balancing both roles often exasperates these high costs. Common concerns of student parents include financial difficulties (Estes, 2011, Haleman, 2004, Michelle, 2014, as cited by Navarro-Cruz et al., 2023), which are commonly associated with increased stress and negative consequences on family wellbeing (Gerrard & Roberts, 2006). Navarro-Cruz et al. also points to how these financial concerns are closely related to difficulties in finding childcare (2023), making it more of a challenge to attend school and/or dedicate time to school related work. It is evident that there are an array of logistic barriers faced by this population that are key obstacles to the academic success of student parents.

In addition to these financial barriers, studies on student parents' lived experiences point to an increase in emotional and mental health challenges, such as guilt and social isolation (Moreau & Kerner, 2015; Brooks, 2015). These challenges also serve as barriers to success in academia. For example, social isolation among student parents may stem from the default construction of university students as carefree and unencumbered (Moreau & Kerner, 2015). More practically, these feelings of social isolation may also stem from the fact that student parents do not tend to prioritize informal academic activities in the way that traditional students can. In addition to not being able to connect more deeply with their academic peers, student parents are also concerned about being perceived as students capable of being academically adept despite the barriers they face. Regardless of the source, feelings of social isolation are a common lived experience among student parents. Moreover, strong feelings of guilt, especially in student mothers, tend to stem from role conflicts involved with balancing parenthood and

studenthood (Edwards, 1993, as cited by Moreau & Kerner, 2015; Brooks, 2015).

Gender Differences

There is large diversity within the student parent population and a strong reason to believe that there may be gender differences within these groups. For women, family status is more likely to be an obstacle than for men, because female childbearing years often coincide with years of higher education (Davies, 2018). Research points to the tendency of student mothers to have a more difficult time dealing with time related barriers, which have been found to be more pronounced for mothers than for fathers (Conway et al., 2021). This can also be conceptualized under gender and motherhood theories. There is a tendency for culturally appropriate motherhood to entail intensive mothering, with a sole commitment to mothering. To devote time or effort to any other endeavour is to take away from being an ideal mother. This is commonly referred to as a motherhood penalty (Correll et al, 2019 and King, 2018, as cited by Moreau, 2023). The same sort of ideal is not imposed on fathers, whose employment or striving to provide, only enhances their status as an ideal father.

It should be noted, however, that student fathers were reported to have a higher college dropout rate compared to student mothers (Contreras-Mendez & Cruse, 2021). This phenomenon may point to familial expectations for fathers to prioritize working and providing monetary support to their children (Burke, 2022). It may also point to more availability of higher paying job opportunities that are physically demanding and more suitable for men or difficulties in asking for accommodations (Burke, 2022). Another explanation is that student fathers may find it more difficult to ask for help or for accommodations in academic settings and are less likely to be included in support programs for student parents than student mothers are (Burke, 2022). These discrepancies highlight that gender is an area worthy of further

exploration.

Other Demographic Factors

In addition to different experiences amongst student mothers and fathers, they may also vary amongst in different institutional departments or programs. For example, Moreau & Kerner (2015) found that participants who were enrolled in programs that were more likely to have a greater number of student parents, such as nursing or education, were less likely to express feeling socially isolated in the academic setting. The sample they used is based on ten universities across England, and it is difficult to say with certainty whether those student populations mirror populations at other institutions. Current data on individual institutional prevalence of student parents in different universities is incredibly sparse, and virtually nonexistent when it comes to specific departments.

It is important to recognize that this research focuses on the lived experiences of student parents themselves, as research rarely examines faculty or student attitudes toward student parents. While the logistical realities faced by the population could be addressed by increased financial support by institutions, it is difficult to determine what will improve these deeply ingrained emotional and mental challenges faced by student parents. Unfortunately, since research rarely examines campus' attitudes toward student parents, it is difficult to say whether these negative and hindering feelings of guilt and social isolation are a response to the institutional environment.

Accommodations and Supports for Student Parents

Another large theme in the research is literature which explores accommodations and faculty support for student parents, as well as outcomes and efficacy of these accommodations and supports. There are a multitude of sources which examine how universities have

implemented accommodations to help alleviate these time and financial related difficulties. Oftentimes, formalized accommodations are a direct expression of institutional and faculty support. Unfortunately, these formalized accommodations are widely lacking (Coleman, 2017; Manze et al., 2022). Despite this shortfall in institutional accommodations, Davies (2018) found that student parents identified flexibility in academia, including online options, forgiving attendance policy, and extended deadlines, to be very important for their success. In addition to corroborating this importance of academic flexibility, Chambers (2020) also highlights the need for childcare and financial assistance. Literature also emphasizes the importance of lactation support facilities in higher education (Coleman, 2017; Davies, 2018).

With this call for additional institutional accommodations and evidence that accommodations can dramatically improve student parent outcomes, the literature also examines the notion of accessibility to these accommodations. It has been demonstrated that not only are these accommodations difficult to come by, but students are expected to self advocate to better navigate these systems (Davies, 2018; Manze et al., 2022). There are hardly any sources that explore factors which are associated with a higher likelihood to request or access accommodations. It is theoretically plausible that existing perceptions toward student parents, whether real or perceived, may be acting as a barrier to accommodations and/or the likelihood to advocate for these accommodations.

Student and Faculty Perceptions Toward Student Parents

As demonstrated, there is a significant gap in the research when it comes to student and faculty perceptions toward student parents. Dickson & Tennant (2021) found discrepancies between faculty perceptions of student mothers' experiences and their actual experiences, as described by student parents themselves. They imply that there is an

assumption that student mothers have a lot more support than they actually do, which may decrease the likelihood that student mothers receive adequate support from institutions. However, this research was based in the United Arab Emirates, and a significant portion of their analysis considers the cultural context (Dickson & Tennant, 2017; 2021) so applicability to North American institutions may be insufficient.

North American studies which explore student and faculty perceptions on student parents are incredibly limited. One study, conducted by Mottarella et al (2009), found that undergraduate students tended to view women who continue their education shortly after giving birth as significantly more dominant, arrogant-calculating and cold-hearted, and less warm-agreeable and feminine than women who discontinued their education. This research did not examine attitudes toward student fathers. They also did not empirically explore whether these views may be associated with behavioural discrimination which may impact the likelihood of student parents accessing or receiving accommodations.

Furthermore, the limited literature that explores faculty and institutional attitudes toward student parents demonstrates that because formal accommodations do not tend to exist (Nichols et al., 2016), individual perceptions and practices embody an institution's tendency to be or not to be family friendly (Nichols et al., 2016). Attitudes held by general student populations are very likely to impact whether a campus is considered family friendly. These attitudes may also impact whether student parents feel comfortable enough to request accommodations. The onus for campus attitudes is often placed on the general student population, making their attitudes highly worthy of consideration. While exploring perceived discrimination is vital to understanding student parents experiences, existing stereotypes and perceptions on campuses could be acting as an invisible barrier to achieving accommodations and is also worthy of

exploration.

No studies to date exist which explore the existence and associations between stereotypes and accommodations in academia in a theoretically driven, quantitative manner. While Mottarella et al greatly improved our understanding of existing stereotypes and perceptions, they did not make any associations between these perceptions and their possible outcomes. However, as will be demonstrated, ample literature demonstrates associations between stereotypes and behavioral outcomes in workplace literature. It may be possible to adapt models derived from this workplace literature to the academic context to explore associations between stereotypes and accommodations.

Stereotype Content Model

The well established and corroborated Stereotype Content Model (SCM) differentiates samples along two dimensions of competence and warmth, each having the potential to be high or low. Various groups of people have been contextualized by the Stereotype Content Model and it has been demonstrated as an accurate way to express over two dozen groups under two dimensions of stereotypes and interpersonal impressions. Warmth is closely related to intentions while competence is closely related to capacity. People who are perceived to have high warmth are assumed to have good intentions and people perceived to have high competence are assumed to have a strong capacity to act on those intentions.

Groups who are perceived to be low in competence and warmth, including poor or homeless populations, tend to be viewed with contempt and/or anger (Cuddy et al., 2008). This is because they are assumed to not have good intentions toward the perceiver and the perceiver's in-group, and they also have a weak capacity to act on their intentions. Conversely, people tend to rate their in-group members or cultural reference populations, such as people who are middle

class, Christian, or White people, as high in warmth and competence (Cuddy et al., 2008). Those who are viewed as being high in competence and low in warmth include those that are wealthy and/or professional (Cuddy et al., 2008). Those who are viewed as being high in warmth and low in competence include the elderly population and housewives (Cuddy et al., 2008). It is important to note that these judgements of competence and warmth are highly dependent on social constructions and cultural realities.

The Stereotype Content Model and Accommodations

Recent literature has also shown that these stereotypes could predict a pattern of distinct behaviours toward those groups, which can be characterized along two dimensions. Behaviours of the perceiver toward the subject are either 'active or passive,' and 'facilitative or harmful' (Cuddy et al., 2008). People will either seek to actively facilitate, actively harm, passively facilitate, or passively harm people in their environment depending on whether they perceive those people to be high or low in warmth and competence. A student's perception toward accommodations can either be passively harmful or passively facilitative, dependent on their support of those accommodations. Application of the Stereotype Content Model would posit that competence and warmth ratings should be able to predict this tendency to be supportive of a student parent's request for accommodations.

As previously mentioned, the Stereotype Content Model has yet to have been applied to an academic context. However, workplace literature has exposed that working mothers tend to be perceived as high in warmth and low in competence (Cuddy et al, 2004). This is in contrast with working fathers, whose parental status increases their warmth and has no impact on their perceived competence (Cuddy et al, 2004). Cuddy et al also found that people were more likely to invest in hiring, promoting, and educating working fathers and people without children than

working mothers (2004). This was shown to be predicted by higher competence levels. It is important to keep in mind that this is in the context of the workplace and not academia.

In the workplace context, opting to hire, promote, and educating employees are facilitative behaviors which reduce barriers to adequate employment. Facilitative behaviors in the academic context could be anything that may help students reduce barriers to their education. As previously discussed, this includes supporting the granting of accommodations that may address obstacles such as financial constraints, time constraints, guilt, and social isolation.

Negative stereotypes of undergraduate students (ie. perceptions that influence harm rather than facilitation of a group) against student parents may have indirect effects on the culture of the campus, making it less likely that an institution may provide financial support to this group. More directly, if undergraduate students perceive student parents as having low competence and warmth, this may point to them as an out-group, meaning that their sense of social isolation stems from an external source.

Mottarella et al found that stereotypes did exist among mothers who returned to study in university shortly after giving birth. However, they did not adapt the SCM to their study (2009). In fact, no such study exists which applies the SCM to a student parent context or analyzes possible discriminatory outcomes associated with stereotypes held by participants. Given the popularity of the SCM in other contexts, and its ability to predict behaviour and outcomes, this points to a large gap in student parent literature.

There is reason to believe that applying the SCM to a student parent context could allow for researchers to draw conclusions on how stereotypes and behaviours toward stereotyped groups may be affected by factors related to in-group bias. As previously explored, there is

reason to believe that workplace literature findings may apply in the academic context.

The Current Study

In the current study, we will quantitatively examine perceptions of undergraduate students on campus toward student parents using the Stereotype Content Model. We will also determine the tendencies of undergraduate students to support accommodations for student parents and investigate whether there are associations between perceptions and accommodation support. This will be accomplished using four main research questions surrounding the competence scale, the warmth scale, and three accommodation items.

The first research question explores the association between parental status, competence and warmth ratings.

Hypothesis 1: Parental status will be associated with lower ratings in competence and warmth for female parents only.

The second research question explores whether the gender of a student parent is associated with competence and warmth ratings.

Hypothesis 2: Female parents will be rated as lower in warmth and competence than male parents.

The third research question explores gender of the participant is associated with ratings of competence, warmth and accommodation support.

Hypothesis 3: It is hypothesized that female participants will rate student mothers as higher in warmth and competence and be more supportive of accommodations than male participants. It is also hypothesized that male participants will rate male fathers and non-fathers as higher in warmth and competence than female participants.

The fourth research question explores whether competence and warmth ratings are

associated with the tendency to support accommodations for student parents.

Hypothesis 4: Higher competence and higher warmth ratings will be associated with greater support for flexible accommodations.

Methodology

Participants

The participants for this study were 140 undergraduate students enrolled at the University of Regina, including 25 men and 108 women. Six participants identified as non-binary or third gender, and one participant chose not to disclose their gender. Screening for parenthood status revealed that 12 of the 140 student participants are parents themselves. Participants' ages ranged from under the age of 18 (n = 2), between 18-24 years old (n = 112), between 25 and 34 years old (n = 16), between 35 and 44 years old (n = 4), between 45 and 54 years old (n = 2), to over the age of 55 (n = 2). Two participants chose not to disclose their ages. Most students belonged to the Faculty of Arts (n = 66) and the Faculty of Science (n = 44). Several participants belonged to the Faculty of Kinesiology and Health Studies (n = 10), and the remainder were dispersed among several other faculties including Business Administration (n = 4), Education (n = 4), Engineering and Applied Science (n = 3), Media, Art, and Performance (n = 3), Social Work (n = 5), and Nursing (n = 1).

Most of the participants were recruited through the University of Regina Participant Pool. To compensate for their participation, they were granted a 1 percent bonus mark which could be applied to a 100 or 200 level psychology course. Several participants were also recruited through general advertising efforts through the University of Regina, including poster and social media recruitment.

A G* Power test with an alpha of 0.05 and 80% power revealed that a sample size of 124 total undergraduate student participants was determined to be necessary to examine relationships between parenting and gender conditions, the stereotype content model, and three accommodation variables. All participants who completed the survey in less than 60

seconds or did not complete the entire survey were not included in the study.

Measures

Consent Form and Demographic Factors

After providing initial consent, participants were given a brief demographic questionnaire. The demographic questionnaire collected information regarding their age, gender, parenting status, and university department/faculty.

Student Profile Vignettes

Participants were randomly assigned to read one of four vignettes which were designed to be identical except for a sentence which alters parenting/gender conditions. See Appendix A.

Stereotype Content Model (SCM) Scale

To assess participants' perception of the student's competence and warmth, all participants completed a questionnaire to rate the student presented in the vignette on twenty traits. The seven-point Likert-type scale (1 = not at all, 7 = extremely) has been previously used for Stereotype Content Model research (Cuddy et al., 2004). The warmth scale consists of four items and the value for Cronbach's Alpha for this scale was $\alpha = 0.8$. The competence scale consisted of four items and the value for Cronbach's Alpha for this scale was $\alpha = 0.8$. The remaining twelve items were filler traits included to mask the purpose of the study. See Appendix B.

Accommodation Items

Three accommodation proxy items were used to evaluate participant's support of accommodations for student parent populations. Participants were asked to rate, on a seven-point Likert-type scale (1 = not at all, 7 = extremely), their stance on supporting each of the

following items: their request for receiving penalty-free extensions to study for exams or complete assignments; their request to receive an allowance to attend lectures and write exams from home. See Appendix C.

While there are many accommodations that are discussed in lived experience literature, the three accommodation items chosen for this study both come at an implicit or explicit cost to fellow classmates and have the potential to drastically reduce barriers for student parents. Being allowed to bring a baby to class, especially in the case that organized childcare fails, may allow for a student not to miss important content. Having the ability to attend lectures and write exams from home could also alleviate childcare concerns. Penalty-free extensions could allow for student parents to overcome time constraints.

Procedure

We obtained ethics from the Research Ethics Board at the University of Regina. The survey was administered online through a Qualtrics link. Participants read and signed a consent form, filled a demographics questionnaire, and read one of four randomly assigned vignettes. The conditions were varied among the dimensions of the gender of the target, either man or woman, and the parental status of the target, either parenting or non-parenting. Therefore, the four conditions were: a man who is a parent, a woman who is a parent, a man who is not a parent, and a woman who is not a parent. Next, participants completed the Stereotype Content Model and Accommodation Items measures. Participants were thanked for their participation and where applicable, they were granted a compensation credit through the Participant Pool.

Data Analyses

To address the four research questions, a 2 (gender: man and woman) x 2 (parental status: parent and nonparent) between-subjects design was employed. Each participant was

randomly assigned to a condition. Descriptive analyses were conducted on all variables. See Table 1. Reliability analysis was also conducted to determine the consistency of the warmth and competence scale in the present study's sample. One-way ANOVAs, with Tukey posthoc tests, were conducted to explore associations between gender, parental status, competence ratings, and warmth ratings. These analyses were supplemented with independent t-tests to test for the differences between groups in each of these cases. To test for the associations between competence and warmth ratings and support for accommodations, a Pearson correlation analysis was conducted.

Table 1: Warmth and competence ratings per target condition

Target condition		Warmth	Competence
Student mothers	Mean	3.5250	3.8782
	Std. Deviation	.67416	.67344
Non-parenting female students	Mean	3.2803	3.5074
	Std. Deviation	.66072	.72427
Student fathers	Mean	3.5147	3.7132
	Std. Deviation	.57716	.71809
Non-Parenting male students	Mean	3.3083	3.5968
	Std. Deviation	.53612	.64768
All conditions	Mean	3.4161	3.6830
	Std. Deviation	.62299	.69902

Results

Associations between Parental Status, Gender, Competence and Warmth Ratings

The first hypothesis stated that parental status will be associated with lower ratings in both competence and warmth for female parents only.

Overall, our results demonstrate that participants rated parents higher in warmth than non-parents (M = 3.5, SD = 0.63; M = 3.2, SD = 0.6, respectively). This difference in the warmth scores between parents and non-parents was statistically significant, $F(1, 134) = 4.7$, $p = 0.03$, partial $\eta 2 = 0.034$. Participants also rated parents higher in competence than non-parents (M = 3.8, SD = 0.7; M = 3.5, SD = 0.7, respectively). This difference in the competence scores between parents and nonparents was also statistically significant, $F(1, 134) = 4.5$, $p = 0.03$, partial $\eta 2 = 0.033$.

More specifically, an independent samples t-test revealed that participants rated the competence of women with parental status 0.37 (SE = 0.16) higher than women without parental status, $t(71) = 2.3$, $p = 0.03$. This difference was statistically significant. Participants also rated the warmth of women with parental status 0.24 (SE = 0.16) higher than women without parental status, but this difference was not statistically significant, $t(71) = 1.6$, $p = 0.12$.

Mean differences in perceptions of competence and warmth between men with and without parental status were also not statistically significant. For warmth, participants rated student fathers 0.2 (SE = 0.14) higher than non-parenting male students, $t(62) = 1.5$, $p = 0.15$. For competence, participants rated student fathers 0.12 (SE = 0.17) higher than non-parenting male students, $t(63) = 0.7$, $p = 0.5$. However, these findings were not significant.

The second hypothesis stated that participants would rate student mothers as lower in

warmth and competence than student fathers.

Overall, women and men were rated similarly in warmth (M = 3.4, SD = 0.7; M = 3.4, SD = 0.6, respectively). Women and men were also rated similarly in competence (M = 3.7, SD = 0.7; M = 3.7, SD = 0.7). There was no statistically significant difference between women and men on the combined dependent variables, competence and warmth, $F(2, 133) = 0.068$, $p = 0.93$; Wilks' $\Lambda = 0.999$; partial $\eta 2 = 0.001$.

This insignificant gender difference was also consistent amongst student parents. Female parents and male parents had a negligible mean difference of 0.01 (SE = 0.15) in warmth, $t(72) = 0.07$, $p = 0.9$ and a difference of 0.16 (SE = 0.16) in competence, $t(71) = 1.01$, $p = 0.3$.

Participant Demographics and SCM Ratings

The third hypothesis stated was that female participants would rate student mothers as higher in warmth and competence, and be more supportive of accommodations, than male participants. It was also hypothesized that male participants would rate male fathers and non-fathers as higher in warmth and competence than female participants.

The results indicate that the impact of the gender of the participants on the competence ratings of the target was not statistically significant, $F(3, 123) = 1.3$, $p = 0.28$, partial $\eta 2 = 0.03$. The impact of the gender of the participant on the warmth ratings of the target was also not statistically significant, $F(3, 122) = 1.4$, $p = 0.235$, partial $\eta 2 = 0.03$.

Furthermore, participant support for accommodations did not differ significantly depending on their age or department. The impact of the participant's department on competence ratings of the target was not statistically significant, $F(15, 110) = 1.1$, $p = 0.35$,

partial $\eta 2 = 0.17$. The impact of the participant's department on warmth ratings of the target was also not statistically significant, $F(3, 122) = 1.4$, $p = 0.235$, partial $\eta 2 = 0.13$. The impact of the participant's age on competence ratings of the target was also not statistically significant, $F(6, 121) = 1.8$, $p = 0.105$, partial $\eta 2 = 0.08$. The impact of the participant's age on warmth ratings of the target was not statistically significant, $F(6, 120) = 1.1$, $p = 0.4$, partial $\eta 2 = 0.05$.

Associations between Perceptions and Accommodations

A correlational analysis between support for three accommodation items and competence and warmth ratings was conducted. No significant associations were found. However, a low positive association which approached significance ($r = 0.16$, $p = 0.06$) was found between competence and support for one of the accommodations, bringing their baby to the classroom. See Table 2.

Table 2: Correlations between Accommodation Items and SCM Ratings (Warmth and Competence)

		Warmth	Competence	Item 1	Item 2	Item 3
Warmth	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	137				
Competence	Pearson Correlation	.530**	1			
	Sig. (2-tailed)	<.001				
	N	136	138			

Item 1: Support for their request to bring their baby to your classroom	Pearson Correlation	.112	.159	1		
	Sig. (2-tailed)	.193	.063			
	N	137	138	140		
Item 2: Support for their request for receiving penalty-free extensions to study for exams or complete assignments	Pearson Correlation	.055	.113	.289**	1	
	Sig. (2-tailed)	.525	.186	<.001		
	N	137	138	140	140	
Item 3: Support for their request to receive a permission to attend lectures and write exams from home	Pearson Correlation	-.043	.056	.388**	.565**	1
	Sig. (2-tailed)	.621	.517	<.001	<.001	
	N	137	138	140	140	140

**. Correlation is significant at the 0.01 level (2-tailed).

Discussion

Impacts of Gender and Parental Status on SCM Ratings: Student Mothers

In contrast with our hypothesis that student mothers would be perceived as lower in competence than non-parenting women, our main significant finding was that participants perceived student mothers as higher, not lower, in competence than non-mothers.

This finding contrasts with previously published results in workplace literature which reveal that parental status is associated with lower ratings in competence in women (Cuddy et al, 2004). Findings by Mottarella et al (2009) reveal that student mothers are less feminine and warm-agreeable, and more dominant, arrogant-calculating and cold-hearted, than mothers who leave academia. These are all traits which, although not explicitly stated by Mottarella et al (2009), point to low warmth. Although they did not explicitly use the SCM scales and compared student mothers to mothers who left academia, rather than non-parenting female students, their study does point to the possibility that student mothers are perceived to have low warmth. Fiske et al (2007) also posits that perceptions of warmth are often negatively correlated with competence. Further research may reveal that the traits tested by Mottarella et al (2009) are closely related to being perceived as higher in competence (Cuddy et al, 2004; Fiske et al, 2007), which could explain the findings of the current study.

There is also a strong possibility that the current study, having been conducted over a decade after the prominent literature in the area, the current study signifies a shift in the cultural and social fabric of university students. Like the present study, both Mottarella et al (2009) and Cuddy et al (2004) use undergraduate students as their participants. It is highly plausible that perceptions and understandings of female competence over the past decade

have changed with the continued advancement of feminist movements. This cultural shift can be explored through qualitative studies or interviews with those who have attended institutions at various points in time. Gathering data on retrospective perceptions and comparing them to perceptions today might allow us to determine whether there has been a shift, which may explain the present findings.

Impacts of Gender and Parental Status on SCM Ratings: Student Fathers

In accordance with findings in workplace literature (Cuddy et al, 2004), parenthood status did not significantly alter competence and warmth ratings amongst male students. For male students, warmth or competence was found to not differ depending on parental status. Although insignificant, these results provide partial support for the hypothesis that parental status would not change competence and warmth ratings for men.

It is unclear why this finding was in accordance with the workplace literature, but findings regarding student mothers were not. A speculative explanation could be that fellow undergraduate students may recognize the role conflicts of mothering and studying as something that requires high competence, but not to the same degree that being a student-father requires high competence. Therefore, student mothers are assumed to be more competent than student non-mothers while student fathers are not. This interpretation corroborates the previously discussed discourse surrounding student fathering (Burke, 2022). It can be speculated that since the struggles of student fathers are not recognized by the general student population (Burke, 2022), parenthood does not alter a male student's level of assumed competence.

This could be empirically tested by further studies which focus on the associations between competence and warmth ratings and more implicit assumptions held about student

fathers, such as the degree to which participants perceive the difficulties associated with balancing those roles. Repeating the present study with a focus on student fathers, which explores these questions, with a larger sample would be more likely to result in significant findings.

Stereotype Content Model: In-Group Biases

The results also contradict the third hypothesis that participants' gender is associated with warmth and competence ratings. By situating the results of the current study within the SCM model, we may be able to speculate that undergraduate students generally view student parents as part of their in-group regardless of their parenthood status. This is based on the part of the SCM which posits that people tend to view those that are rated highly in warmth and competence as part of their in-group (Fiske et al, 2007). The results of the present study indicate that both the lack of accommodations on campuses as well as student parents' sense of isolation cannot necessarily be attributed to student perceptions toward these groups.

As a result, further empirical exploration is warranted to explore other possible reasons why the lived experience of student parents, and especially student mothers, is that of social isolation. Further exploration is also warranted to determine why accommodations are so difficult to come by for student parents despite high support from other students (Davies, 2018; Manze et al., 2022). It is highly plausible that studies which focus more specifically on the perceptions of faculty, and specifically professors, on students with children as well as their support for accommodations, may address these important questions.

The insignificant differences in perceptions of competence and warmth among student mothers and student fathers were also surprising considering the workplace literature conducted by Cuddy et al (2004) which demonstrates significant gender

differences. This finding demonstrates that extrapolating the Stereotype Content Model workplace literature and imposing those findings onto academic populations is insufficient.

One explanation for the discrepancies between workplace literature and the current study, in the context of social psychology, is that the undergraduate student participants in Cuddy et al were asked to assume the role of a client hiring a consultant (2004). Our current study allows participants to maintain their role as undergraduate students and report perceptions on targets who could be their peers. The difference here is in the fact that there are hierarchies in the workplace, which are nonexistent or at least not as evident, in academia. These workplace hierarchies are not only between employers and employees but also among employees who are in competition with one another for promotion. Despite attempting to mitigate this factor in the selection of accommodation items, Cuddy et al's (2004) participants take on a greater risk in their assumed role than the participants of this current study. As a result, facilitation or harm of fellow students in the current study comes at less of a cost than facilitation or harm in workplace studies. This could be one explanation for the lack of support for many of the hypotheses of this study, which were based mainly on the workplace literature.

The closest equivalent to an employer, with respect to a hierarchy, in an academic setting is a student's professor. A study which focuses on faculty perceptions may be better suited as a representation of the overall campus' perception toward accommodations. However, it would not completely mitigate the previously discussed issue, as professors do not necessarily risk anything by granting, or not granting, accommodations for their students. An additional alternative for future studies, still based on behavioural outcomes of facilitation and harm, could be to replace the student vignettes with more targeted

descriptions of students seeking a teaching or research assistant opportunity. Further studies should replace participants with faculty members and replace the items related to support for accommodations with items related to hiring academic assistants to garner more meaningful insights.

In-Groups in Academic Settings: A Response to Lived-Experience

In the context of the Stereotype Content Model (SCM), findings from the current study may point to how in-group and outgroup biases function within academia, and specifically among students. Stereotypes are often projected onto those who do not belong to our reference group, as those who are part of an individual's in-group are generally perceived as high in warmth and competence. As previously discussed, student parents tend to feel a high degree of isolation from the general student body.

Student parents' professed sense that their parenthood status makes them part of an out-group is surprising given the results from the current study. Both male and female participants had judgments of parents' warmth and competence. Results from the current study may demonstrate that undergraduate student participants identify more with the targets for their student status as opposed to gender, which is why competence and warmth perceptions did not differ according to participant gender.

A significant limitation of the current study is that it tests gender as the sole demographic factor that may impact competence and warmth ratings and, due to small sample size, ignores other factors, such as department, parenthood status, and age. Since it was found that student parents have different lived experiences depending on their programme (Moreau & Kerner, 2015), the specific department should be of special

consideration in future studies.

Along the same lines, there are a variety of individual factors which may impact competence and warmth ratings as well as accommodation support which were not accounted for in this study. For example, those who are more easily distracted may be less likely to support their classmate's request to bring their baby to their classroom. It is not clear whether this would be related to the perceived warmth or competence of the student parent themselves or other factors related to the individual. Further studies should consider possible confounds, such as those listed above, to determine whether perceptions may be related to factors separate from the SCM.

Accommodations and Perceptions

In direct contrast with the fourth hypothesis that higher competence and higher warmth ratings will be associated with greater support for flexible accommodations, the correlational analysis conducted in the present study did not reveal any strong associations between each of the three accommodation items and warmth/competence ratings. Our results are in direct contention with the Stereotype Content Model's behaviours from the intergroup affect and stereotypes (BIAS) map (Cuddy et al, 2008). The BIAS map posits that behaviours toward groups are determined by the stereotypes or perceptions that someone holds toward that group (Cuddy et al, 2008). In contrast with this part of the SCM model, the only correlation which barely approached significance was the almost negligible positive association between perceived competence ratings and the first accommodation item, bringing the baby to the classroom.

While negligible, it is important to note that the reason why this correlation for this accommodation approached significance and the others did not is that this is the only

accommodation to explicitly come at a cost to participants. The effect of this item is larger than the other two, making a significant finding more likely. More importantly, a plausible explanation for the lack of support for the hypothesis is that there may not have been enough variation in warmth and competence ratings or accommodation item support to demonstrate any significant difference.

Conclusion

The main bodies of student parent research have, to date, focused on lived experiences of student parents and access to accommodations. The literature demonstrates a challenging reality for this sizeable minority and the unfortunate availability of formal accommodations to address those challenges across various institutions. It is highly plausible, based on this literature, that campus perceptions toward student parents play a role in these realities. This current study contributed to the gap in student-parent literature by directly examining perceptions of an undergraduate study body toward student parents in a quantitative and theory-driven manner.

Many populations have been studied using the Stereotype Content Model (SCM), developed by Cuddy et al (2002), which categorizes perceptions on two dimensions of warmth and competence. The model also proposes that perceptions toward a population are associated with the tendency of a perceiver to help or harm that population, which has been established in workplace literature. Our assumption was that this would be directly applicable to the study of student parent accommodations.

This randomized control trial contributed to wider social psychology research on the SCM, applying it in a new context and providing insight as to how the model operates in an undergraduate student population. Our main significant finding was that participants perceived student mothers as higher, not lower, in competence than non-mothers. This is irrespective of the

gender of the participants themselves, demonstrating that students may consider their peers as part of their in-group regardless of gender. Through this study, we were able to determine that lived experiences of student parents as feeling socially isolated and lacking institutional support are despite, and not necessarily because of, the perceptions of students on campus.

Practically, because negative or harmful perceptions were not demonstrated to exist as per the results of this study, student parents should find more comfort in the prospect of discussing and advocating for accommodations that they need on campus, especially considering that they have the support of their fellow students. These accommodations may remove some of the extensive barriers faced by this population.

The findings do not support the assumption that workplace literature can be adequately applied to an academic context or that student parent studies from over a decade ago can be used to draw conclusions on current campus perceptions. Future directions in studies on student parents on campus should explore faculty perceptions, as faculty are less likely to consider students as part of their in-group and more likely to have more of a direct impact on student parent outcomes in universities.

Appendix A

Student Profile Vignettes

We're studying how quickly people form first impressions, making important decisions from little information. We'd like you to read the profile of a student at the University of Regina and give us your first impressions of them.

Please try to respond with your first, uncensored impressions.

"Megan (Dan) is a 22-year-old student who is studying Psychology at the University of Regina. She (He) has been studying at the university for 3 and a half years and is currently enrolled in classes full-time. Her (His) hobbies include swimming and tennis. [Megan (Dan) recently had her (his) first baby.] Megan's (Dan's) favourite drink from Tim Hortons is a London Fog and her (his) favourite franchise is Marvel."

Each of the four vignettes can be varied to match the following conditions. The other factors, including student status, hobbies, favourite drink, and favourite franchise, remain constant between all four vignette variations.

1. Student mother
2. Female student (non-parenting)
3. Student father
4. Male student (non-parenting)

Appendix B

Stereotype Content Model (SCM) Scale

The items will be presented in random order as follows.

Warmth-related traits include asking whether this person is:

1. Good-natured
2. Sincere
3. Warm
4. Trustworthy.

Competence-related traits include asking whether this person is:

1. Capable
2. Efficient
3. Organized
4. Skillful.

Filler traits will include asking whether this person is tolerant, determined, practical, humorous, and several other traits that are not highly correlated with warmth or competence factors.

Appendix C

Accommodation Items

How likely are you to be supportive of the following:

1. Their request to bring their baby to your classroom
2. Their request for receiving penalty-free extensions to study for exams or complete assignments
3. Their request to receive an allowance to attend lectures and write exams from home?

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