Division of labor in parenting amongst Chinese parents in Hong Kong

Daniel TL Shek^{1,*}, PhD, FHKPS, BBS, SBS, JP, Ching Man Lam², PhD, and Zi Yang¹, PhD

¹Department of Applied Social Sciences, The Hong Kong Polytechnic University, Hong Kong ²Department of Social Work, The Chinese University of Hong Kong, Hong Kong, PR China

Abstract

This study reported an investigation into the family division of labor among Chinese parents in Hong Kong and its association with gender, educational level, occupational status and family income. It drew on a culturally sensitive scale developed for the people under studied. A total of 5,707 questionnaires were included in the analysis, and respondents showed a diversity of demographic characteristics. Analyses of the profiles of responses showed a persistence in gendered share of childcare responsibilities with mothers playing the main role in childcare and fathers playing an assisting role, although a more equalitarian gender attitude was noticed. Regarding other socio-demographic correlates, it was found that parents' educational level, intensity of market work, and family income in general were negatively correlated to the participation in childcare duties, a possible explanation of which was time availability. Endorsement of traditional gender stereotype was also related to the background sociodemographic factors.

Keywords: Division of labor, Chinese parents, sociodemographic correlates, gender stereotype

Introduction

Gendered division of labor has been widely studied in Western societies. The higher level of women employment has been witnessed with a slow course towards an equal share of housework (1). Women still tend to undertake the majority of housework and parenting routines (2). On the other hand, a more equal share of child rearing duties has many benefits. Positive father's involvement is associated with children's wellbeing, as it decreases children's problem behaviors and facilitates their cognitive and linguistic development (3-6). It is also highly related with marital satisfaction, although a complex picture has been presented across cultures (7, 8). However, gendered division of labor has been an understudied

^{*} Correspondence: Daniel TL Shek, PhD, FHKPS, BBS, SBS, JP, Associate Vice President (Undergraduate Programme), Chair Professor of Applied Social Sciences and Li and Fung Professor in Service Leadership Education, Department of Applied Social Sciences, The Hong Kong Polytechnic University, Hunghom, Hong Kong, PR China. E-mail: daniel.shek@polyu.edu.hk

field in Hong Kong. Against this background, the present study adds to the scientific literature in the field in two notable ways. First, it draws on a culturally sensitive scale to study division of labor in the local context. Second, as few researchers have specifically examined how division of labor interacts with socio-demographic factors as standalone factors besides gender, this study includes educational level, occupational status and family income in the analysis.

There has been a considerable body of literature focusing on gender inequality in sharing childcare duties with reference to factors such as policy, socioeconomic status and gender perception in Western societies. In general, the extant literature suggests a persistence in gendered division of labor in parenting, with mothers undertaking more intensive parenting while fathers taking a back seat, despite the fact that fathers are seen with increased participation in childrearing and other household responsibilities (9-14).

From a macro level, researches have specifically looked into social policy and gender norms and perspectives (14-17). Most studies have found positive effect of family-friendly social policies such as supportive leave policy and flexible work arrangements on promoting gender equality in childcare and supporting work-family reconciliation (16, 18-20). However, some studies have raised doubts about the extent to which the policy can be translated into practice. For example, Windebank (14) argued that in French society, the social policy aiming at promoting gender equality in domestic matters had limited effect in that it helped women reconcile workfamily conflicts but failed to encourage or coerce men, or take care of the social feedback for them to engage more in childcare. Indeed, supportive nonparental childcare, as argued by Craig and Powell (15), did relieve mothers of childcare responsibilities to some extent. However, it was accompanied by the additional time devoted to paid work and higher subjective time pressure, while "fathers' time is more constant" (p. 100). Therefore, they argued for a more father-friendly policy instead.

The gender perspective has been perceived as an important underlying reason to explain gendered division of labor at home (14,21). An egalitarian gender attitude very often predicts a more equal share of responsibilities (16,22), but it presents a complex

picture as it interplays with many other factors. Highly educated parents are often more receptive to progressive gender norms and have better understanding of proper childcare (9). In a quantitative study of highly educated, dual-earner household in Spain, Martínez and his colleagues (23) found these parents tended to agree more with egalitarian gender roles in parenting. The factors of country and culture are also at play. For example, in a study of gender attitudes conducted by Buber-Ennser and Panova (24), substantial variation was found among 14 European countries, Australia and Japan in terms of level of traditionalism. To be specific, Norway and Estonia held the most egalitarian view towards mother's role in childcare, while Hungary, Georgia and Russia held the most conservative view, for which the researchers postulated that the diversity could be ascribed to influences such as provision of public childcare, maternal leave, religion and culture.

From a micro level perspective, parent's educational level, income or work status have been a focus of concern (9, 12, 25, 26), although researchers did not always distinguish housework from childcare duties. Känsälä and Oinas (26) carried out a study on dual-career couples ("career" was defined as performing professional or managerial work) in Finland who had higher educational level, work status and earning capacity. They found that dual-career couples assumed more equal responsibility in domestic division of labor than no-career parents, male-career couples and female-career couples did, which might be attributed to the limited time availability of dual-career women, or their likelihood to outsource or bargain their way out of unpaid domestic housework. Heisig's (12) quantitative study involving 33 countries echoes Känsälä and Oinas' (26) findings to some extent, as it also revealed that household income found its expression in housework time. High-income couples devoted less time in housework than their low-income counterparts, and the contrast was even starker for women. Differed from these arguments based on the economic perspective, Craig (9) argued for a contradictory effect amongst educational level, earning capacity and time spent with children. In fact, her research provided empirical evidence that university-educated parents had higher receptivity to attentive child rearing and allocated more time to care of children, the effect of which outweighed the effect of a pull to the market. Her findings are consistent with a prior study conducted by Sundström and Duvander (27) in Sweden. Drawing on parental leave as a proxy for time for childcare, they found that both fathers' and mothers' income and educational level were positively associated with paternal leave use.

As can be seen from the above review of literature, the division of labor in childcare presents a complicated picture with sometimes contradictory results (28, 29). Admittedly, participation in childcare is often conditioned by many different forms of social influences, and therefore cannot be easily generalized across countries and cultures. As argued by many researchers (30-32), cultural sensitivity should constitute a pivotal part in the study of parenting and always reflect culturally-appropriate values and beliefs.

Most of the related studies in the field have been carried out in Western contexts. Only a few studies have been conducted to examine how participation of housework duties interplays with social variables in mainland China (33,34). Overall, a gendered division of labor was found in these studies, with a conformity to traditional gender norms that women undertook the major housework and childcare. After all, "workfamily balance is considered a woman's problem" (33). Little research has been conducted in the context of Hong Kong.

In the traditional Chinese culture, men and women were seen to be very different. For men, as they have more strength, they are primarily responsible for farming activities. Therefore, men have more authority in agricultural society and they are leaders of the society. In contrast, women are basically responsible for domestic chores in the family and they serve as subordinate role to men. With reference to the role of men and women in the family, the husband has authority over his wife and he can divorce his wife if she does not perform well. These differences are further translated into the differential roles of fathers and mothers, where fathers are typically regarded as the leader of the family whereas mothers take up the caregiving tasks. These differences are existing in contemporary Hong Kong society (32).

Against this background, this article attempts to look at the profiles of responses of Hong Kong

parents' division of labor and examine the sociodemographic correlates including gender, educational level, occupational status and family income. It draws on the Parental Division of Labor Scale which assesses three constructs: participation in childcare as the main caregiver; participation in childcare as the assisting caregiver; attitude towards traditional gender stereotype. The research questions and hypotheses are as follows:

- 1) What are the response profiles of Chinese parents to the items in the scale?
- 2) Is there any gender difference in parental division of labor and gender belief?
 - Hypothesis 1a: Compared with fathers, mothers would be more involved as main caregivers.
 - Hypothesis 1b: Compared with mothers, fathers would be more involved as assisting caregivers.
 - Hypothesis 1c: Compared with mothers, fathers would have a stronger endorsement of traditional gender stereotypes.
- 3) Are parental division of labor and gender belief related to the educational level of the parents?
 - Hypothesis 2a: Because of work constraint, parents with higher education attainment would be less involved as main caregivers.
 - Hypothesis 2b: Because of work constraint, parents with higher education attainment would be less involved as assisting caregivers.
 - Hypothesis 2c: Parents with higher education attainment would have lower endorsement of the traditional gender stereotype.
 - Hypotheses 2d, 2e and 2f: similar expectations were proposed for spouse.
- 4) Are parental division of labor and gender stereotypes related to the occupational status of parents?
 - Hypothesis 3a: Compared with parents who committed more time to market work, parents who committed less time

- to market work would involve more as main caregivers.
- Hypothesis 3b: Compared with parents who committed more time to market work, parents who committed less time to market work would involve more as assisting caregivers.
- Hypothesis 3c: Compared with parents who committed more time to market work, parents who committed less time to market work would have stronger endorsement of the traditional gender stereotype.
- Hypotheses 3d: Parents with spouse who committed less time to market work would involve less as main caregivers.
- Hypotheses 3e: Parents with spouse who committed less time to market work would involve less as assisting caregivers.
- Hypotheses 3f: Parents with spouse who committed more time to market work would have lower endorsement of the traditional gender stereotype.
- 5) Are parental division of labor and gender belief related to family income?
 - Hypothesis 4a: Family income would be negatively related to endorsement of main caregiving role.
 - Hypothesis 4b: Family income would be negatively related to endorsement of assisting caregiving role.
 - Hypothesis 4c: Family income would be negatively related to endorsement of the traditional gender stereotype.

Methods

This study is a part of the project entitled "Raising children in Hong Kong" which adopts a cultural-intergenerational perspective into Hong Kong parents' beliefs in parental roles and responsibilities (31). Researchers developed several scales in this project. In the present paper, we focus on division of labor in child rearing ("gendered parental roles") assessed by the Parental Division of Labor Scale. There are five items in this scale, i.e. Item 1: In the domestic

division of labor, I take charge of childcare. Item 2: In the domestic division of labor, I assist in childcare. Item 3: I am an implementer in childcare. Item 4: I am a decision-maker in childcare. Item 5: I agree with the perspective "men are breadwinners and women are homemakers". Respondents were asked to score on a 5-point Likert scale with 1 indicating "disagree very much" and 5 indicating "agree very much". These items assess three aspects of division of labor in the family, including whether one plays the role of main caregiver (items 1, 3 and 4), whether one plays an assisting role in childcare (item 2) and attitude towards the traditional view on family division of labor (item 5).

In total, 5,707 valid questionnaires were collected and included in the analysis. The sample included five generational cohorts of Hong Kong parents with different demographic characteristics in terms of gender, age, number of children, educational level and employment status. The profiles of respondents are shown in table 1. Cronbach's α reaches .765 for the five items, suggesting a moderate to high reliability. In the analysis, hypotheses were tested using one-way ANOVA. For each of these three categories, this study aims to investigate the association of the scale scores with gender, educational level (of both the respondent and his/her spouse), occupational status (of both the respondent and his/her spouse), and family income.

Results

Table 2 presents the descriptive statistics for the domestic division of labor in childcare by gender. Fathers reported lower scores in assuming the main role of child rearing (M=3.18) than mothers did (M=3.60), but higher scores in taking the assisting role (father: M=3.30; mother: M=3.03). Significant difference was observed for both roles (main role, F=224.49, p<0.005, $\eta^2=0.04$; assisting role, F=62.13, p<0.005, $\eta^2=0.01$). Significant difference was also found between men and women in their degree of approval of the traditional belief that men as breadwinners and women as homemakers (F=9.76, p=0.002, $\eta^2=0.002$). In short, Hypotheses 1a, 1b and 1c were supported.

Table 1. Demographic characteristics of the participants (n = 5707) (31)

| Variable | Percentage |
|--------------------------------------------|--------------|
| Gender | |
| Male | 31.7 |
| Female | 67.5 |
| Missing | 0.8 |
| Age | |
| 21–30 | 2.0 |
| 31–40 | 20.4 |
| 41–50 | 28.9 |
| 51–60 | 22.8 |
| 61–70 | 15.7 |
| 71–80 | 6.2 |
| 81–90 | 3.7 |
| 91 or above | 0.3 |
| Missing | 0 |
| Number of children | |
| 1 | 30.9 |
| 2 | 48.5 |
| 3 | 14.4 |
| 4 or more | 6.2 |
| Cohort of first child born | |
| 1970s or before | 17.6 |
| 1980s | 17.4 |
| 1990s | 17.2 |
| 2000s | 31.0 |
| 2010s | 12.5 |
| Missing | 4.3 |
| Educational level | |
| Primary or below | 14.2 |
| Junior secondary | 17.1 |
| Senior secondary | 31.1 |
| Matriculation | 6.7 |
| College / University | 24.2 |
| Postgraduate | 4.7 |
| Missing | 2.1 |
| Employment status | 45.7 |
| Full-time employee Part-time employee | 45.7 10.6 |
| Homemaker | 17.0 |
| | |
| Unemployed | 1.3 |
| Retired | 20.9 |
| On social assistance Missing | 1.8 2.7 |
| Monthly family income in HK\$ | ۷.1 |
| \$4000 or below | 7.0 |
| \$4000 - \$9000 | 5.0 |
| \$10,000 - \$14,999 | 8.7 |
| | |
| \$15,000 - \$19,999 | 10.0 |
| \$20,000 - \$29,999 \$30,000 - \$49,999 | 15.2 20.4 |
| \$50,000 - \$49,999 \$50,000 - \$79,999 | 15.1 |
| \$80,000 or above | 12.1 |
| Missing | 6.5 |

Table 2. Division of labor by gender

| | Father Mean (SD) | Mother Mean (SD) | F |
|--------------------------------------|------------------------|------------------------|----------|
| Main role | 3.18 (.92) | 3.60 (.98) | 224.49** |
| Assisting role | 3.30 (1.07) | 3.03 (1.24) | 62.13** |
| Traditional belief about gender role | 3.04 (1.23) | 2.93 (1.28) | 9.76** |

^{**}p < .005.

Table 3 indicates that participants' educational level had a negative association with involvement as main caregivers (F = 6.39, p < .001, $\eta^2 = .005$). A general decrease of mean for the "main role" was observed with the increase of educational level. Post-hoc comparisons using the Least Significance Difference (LSD) Test were conducted to identify pairs of means that differ. The result showed that the mean difference did not generate a statistical difference at .05 significant level between the groups of "lower secondary school", "completed secondary school", "college" "university/higher education". However, the group of "primary or below" stood out with significant mean higher score in performing the main role than the rest of the groups (except for the group of "college"), while parents with postgraduate degree were least likely to engage as the one in charge of childcare. The findings supported Hypothesis participant's educational The level was also negatively related to performing assisting role (F = 42.07, p < .001, $\eta^2 = .036$). The LSD post hoc tests revealed that the variance of mean between the groups all reached .05 significant level (except for between "completed secondary school" and "college", p = .52). The findings supported Hypothesis 2b. With regard to the gender belief, parents received more education scored significantly lower score on approving the gender stereotype (F = 37.36, p < .001, $\eta^2 = .032$). It is noted that the groups of "primary or below" and "lower secondary school" differed significantly from the rest four groups. The findings supported Hypothesis 2c.

Table 3. Division of labor by educational level

| | Main role Assisting role | | Traditional belief about gender role | |
|-----------------------------|--------------------------|-------------|--------------------------------------|--|
| | Mean (SD) | Mean (SD) | Mean (SD) | |
| Primary or below | 3.61 (1.06) | 3.56 (1.26) | 3.40 (1.40) | |
| Lower secondary school | 3.47 (1.00) | 3.26 (1.23) | 3.14 (1.34) | |
| Completed secondary school | 3.45 (.97) | 3.10 (1.19) | 2.92 (1.23) | |
| College | 3.53 (.98) | 3.05 (1.14) | 2.96 (1.22) | |
| University/Higher education | 3.44 (.92) | 2.90 (1.09) | 2.78 (1.15) | |
| Graduate School | 3.24 (1.00) | 2.69 (1.05) | 2.46 (1.09) | |
| F | 6. 39*** | 42.07*** | 37.36*** | |

^{***}p <. 001.

Table 4. Division of labor by educational level (spouse)

| | Main role Assisting role | | Traditional belief about gender role | |
|-----------------------------|--------------------------|-------------|--------------------------------------|--|
| | Mean (SD) | Mean (SD) | Mean (SD) | |
| Primary or below | 3.56 (.99) | 3.39 (1.24) | 3.34 (1.33) | |
| Lower secondary school | 3.44 (.99) | 3.20 (1.19) | 2.99 (1.27) | |
| Completed secondary school | 3.43 (.94) | 3.10 (1.15) | 2.93 (1.21) | |
| College | 3.38 (.97) | 2.97 (1.11) | 2.98 (1.17) | |
| University/Higher education | 3.32 (.93) | 2.88 (1.07) | 2.75 (1.16) | |
| Graduate School | 3.35 (.93) | 2.79 (1.08) | 2.59 (1.11) | |
| F | 4.28** | 16.90** | 17.29** | |

^{**}p < .005.

Table 5. Division of labor by occupational status

| | Main role Assisting role | | Traditional belief about gender role | |
|----------------------------|--------------------------|-------------|--------------------------------------|--|
| | Mean (SD) | Mean (SD) | Mean (SD) | |
| Work full time | 3.35 (.93) | 2.99 (1.11) | 2.75 (1.18) | |
| Work part time | 3.49 (.99) | 3.02 (1.22) | 2.87 (1.25) | |
| Full time home-maker | 3.63 (.97) | 3.02 (1.23) | 3.13 (1.23) | |
| Unemployed or between jobs | 3.56 (.96) | 3.15 (1.22) | 2.95 (1.37) | |
| Retired | 3.54 (1.06) | 3.52 (1.24) | 3.32 (1.38) | |
| Social security recipient | 3.71 (.97) | 3.22 (1.29) | 3.53 (1.28) | |
| F | 15.56*** | 35.10*** | 42.45*** | |

^{***}p < . 001.

Similar to the result shown in table 3, there was significant difference between the educational level of the spouse and the respondents involving as the main caregivers (see Table 4) (F = 4.28, p = .001, $\eta^2 = .004$), as the assisting role (F = 16.90, p = .000, $\eta^2 = .019$), and the degree of agreeing with the gender stereotype (F = 17.29, p = .000, $\eta^2 = .019$). The general decreasing mean for both the "main role" and "assisting role" suggested that highly educated spouse was accompanied by less participation in childcare for the respondent. Similar association was found for the gender stereotype. The findings supported Hypotheses 2d, 2e and 2f.

As shown in Table 5, there were significant differences amongst the occupational groups in terms of undertaking the main role (F = 15.56, p = .000, $\eta^2 = .013$). Parents working full time scored the lowest, and post hoc LSD tests showed that it differed significantly with the other four groups (except for "unemployed or between jobs", p = .06). According to the results, the four groups who committed less time to market work (i.e. "full time home-maker", "unemployment or between jobs", "retired" and "social security recipient") reached higher mean scores in taking the main role in childcare than the rest two groups who devoted more time to market job (i.e. "work full time" and "work part time"). As to the

assisting role, although a significant difference was found between groups (F = 35.10, p = .000, $\eta^2 = .03$), post-hoc comparisons indicated that only the group "retired" which was found with the highest score were different from the other five groups. The rest of the pairs did not generate significant difference at .05 level. Groups also varied with regard to the

gender belief (F = 42.45, p = .000, $\eta^2 = .036$). The incremental mean scores suggested that more intensive workforce participation (i.e. "work full time" and "work part time") was accompanied by higher tendency to reject this gender stereotype. Generally speaking, the findings provided support for Hypotheses 3a, 3b and 3c.

Table 6. Division of labor by occupational status (spouse)

| | Main role | Assisting role | Traditional belief about gender role |
|----------------------------|-------------|----------------|--------------------------------------|
| | Mean (SD) | Mean (SD) | Mean (SD) |
| Work full time | 3.46 (.94) | 2.92 (1.11) | 2.80 (1.16) |
| Work part time | 3.32 (.90) | 3.19 (1.10) | 2.99 (1.21) |
| Full time home-maker | 3.08 (.90) | 3.32 (1.09) | 3.25 (1.24) |
| Unemployed or between jobs | 3.34 (.94) | 3.07 (1.21) | 2.91 (1.25) |
| Retired | 3.41 (1.03) | 3.34 (1.24) | 3.09 (1.37) |
| Social security recipient | 3.67 (.88) | 3.35 (1.11) | 3.56 (1.28) |
| F | 12.28*** | 21.63*** | 16.56*** |

^{***}p <.001.

Table 7. Division of labor by monthly family income (HKD)

| | Main role | Assisting role | Traditional belief about gender role |
|-----------------|-------------|----------------|--------------------------------------|
| | Mean (SD) | Mean (SD) | Mean (SD) |
| < 4,000 | 3.69 (1.15) | 3.61 (1.32) | 3.45 (1.45) |
| 4,000 – 9,999 | 3.53 (.97) | 3.17 (1.18) | 3.05 (1.32) |
| 10,000 – 14,999 | 3.56 (1.01) | 3.22 (1.26) | 3.05 (1.33) |
| 15,000 – 19,999 | 3.42 (1.02) | 3.16 (1.22) | 3.01 (1.25) |
| 20,000 – 29,999 | 3.42 (.95) | 3.18 (1.17) | 2.97 (1.24) |
| 30,000 – 49,999 | 3.46 (.93) | 3.04 (1.12) | 2.88 (1.22) |
| 50,000 – 79,999 | 3.39 (.95) | 2.92 (1.12) | 2.74 (1.16) |
| > 80,000 | 3.38 (.97) | 2.84 (1.10) | 2.79 (1.18) |
| F | 5.48*** | 20.18*** | 15.42*** |

^{***}p < .001.

As presented in table 6, groups differed for the three measures according to spouse's occupational status. For the main role (F= 12.28, p = .000, $\eta^2 = .013$), the status with the spouse performing as a full-time home-maker was found with the respondent scoring the lowest in assuming the main role. Post hoc tests showed the mean was significantly lower than the rest groups. However, respondents with spouse as social security recipient were very likely to take the main role (M = 3.67). Table 5 also shows that respondents with spouse's occupational status as "social security recipient" (M = 3.35), "retired" (M = 3.34) and "full time home-maker" (M = 3.32)were more likely to perform the assisting role $(F=21.63, p=.000, \eta^2=.024)$. As to the gender perception (F = 16.55, p = .000, $\eta^2 = .018$), it saw the

least acceptability among respondents with spouses working full time (M = 2.80), and the most (M = 3.56) among those with spouses as social security recipient. In general, the findings did not give strong support to Hypotheses 3d and 3e, but confirmed Hypothesis 3f.

Table 7 presents the mean scores for the three measures in different family income groups. For the main role in parenting, there was an overall reduced mean along with greater earning capacity of a family. The mean difference between groups is statistically significant (F = 5.48, p = .000, $\eta^2 = .006$). Post hoc tests indicated that the five higher-income groups (i.e. 15,000 - 19,999 and above) did not differ in terms of taking the major responsibility of child rearing, but they reported significant lower scores than the rest three groups did (10,000 - 14,999 and below). For

performing assisting role, diminishing mean score was also found between groups with the household monthly income increased (F = 20.18, p = .000, $\eta^2 = .025$). Post hoc comparison tests showed that parents from the highest income groups, i.e. groups 7 (50,000 - 79,999) and 8 (> 80,000), reported significant lower scores in performing assisting role while the lowest income group, group 1 (<4,000), reported the highest. Similarly, as to the traditional belief (F = 15.42, p = .000, $\eta^2 = .019$), parents from group 1 were more likely to hold the traditional gender ideology, whereas parents from group 7 and 8 were less conservative on this matter. These findings basically supported Hypotheses 4a to 4c.

Discussion

The purpose of the present study was to explore whether background socio-demographic factors are related to domestic division of labor in childcare in the context of Hong Kong. The first set of hypothesis (1a, 1b and 1c) were confirmed by the results shown in table 2 that there was a gendered, unequal share of childcare among Hong Kong parents. Consistent with the majority of existing studies conducted elsewhere (10-12,14,33), Hong Kong mothers still assumed the main responsibility of childcare while fathers assumed the assisting role. We should also emphasize that the effect size for involving as main caregivers was medium ($\eta^2 = .04$), indicating a modest effect of gender on how childcare was divided between parents in practice. Meanwhile, results also showed that men were more likely to persist in believing the traditional gender concept "men are breadwinners and women are homemakers", although the effect size was very small. The present findings are generally consistent with previous studies (35) that a more egalitarian gender attitude could not always be fully translated into a reshuffle of family roles in practice. This gendered phenomenon may have its root in Chinese cultural values. Chinese society has long held a cultural belief of gender differentiation in parenting, in which paternal role is to engage with market work while maternal role is to meet basic needs of children (32).

It is demonstrated by our findings that, in general, parents' educational levels, family income and

intensity of market work all negatively correlated to undertaking the main role in child rearing labor (although in some cases the effect size is very small), which supported hypotheses 2a, 2d, 3a and 4a. Results also suggested a negative association between these variables and taking an assisting role in parenting, which in general supported hypotheses 2b, 2e, 3b and 4b. The two results combined imply that higher educational and income level, and intensifier market work may suggest less engagement in parenting. It contradicts the findings in several existing literature (9, 27) in which they argued the opposite was true.

One possible explanation for this can be drawn from a rational economic perspective – time availability (36,37). Researchers argued that allocation of domestic tasks depended on the time availability of partners. This theorization, among others such as "doing gender" perspective (38) and relative resource perspective (39), may entail stronger explanatory power to the society of Hong Kong, due to the stressful living in the metropolis of Hong Kong with a high cost of living. Reports and studies (40,41) have confirmed the situation of long working hours in Hong Kong. For example, The Swiss Investment Bank (UBS): Price and earning report (2015) (41) shows that Hong Kong people work for an average of more than 50 weekly working hours and 2,606 working hours per year, ranking the highest out of 71 cities across the world. It is likely that parents with higher educational level, greater earning capacity and higher intensity of workforce participation may all inform more amount of time devoted to market work and therefore less free time available for performing childcare duties. In contrast, parents with less breadwinning stress or capability are more able to transfer their time into childcare.

This study also provides some empirical evidence that overall parents with better education, greater earning capacity and/or more commitment to market work tended to be more open-minded and hold a progressive gender attitude. In contrast, less education, less earning power and more free time lead to a more conservative attitude and conformity to the traditional gender norms. Therefore, hypotheses 2c, 2f, 3c, 3f, 4c were confirmed. The results are largely in tune with the positive association found between an equal gender attitude and multiple social variables such as education and income in other cultures (42,

43). Given the observed positive association, our findings demonstrate that education and work can function as a vehicle to change one's gender attitudes and encourage gender equality in childcare participation.

While the findings are interesting and pioneer in nature, there are several limitations of the study. First, only five items were used to assess three aspects of family division of labor. Obviously, it would be helpful to use more items to assess these dimensions to make the measures more reliable. Second, the findings are based on self-report measures. It would be helpful to understand the actual behavior of oneself and one's spouse. Finally, as the data collected are cross-sectional in nature, it would be theoretically interesting to look at the impact of these socio-demographic factors over time. Despite these limitations, the present findings shed light on family division of labor in a Chinese context and the related socio-demographic correlates.

Acknowledgments

The preparation for this paper is financially supported by Research Grant Council (Grant Number U414053). The authorship is equally shared by the three authors.

Ethical compliance

The authors have stated all possible conflicts of interest within this work. The authors have stated all sources of funding for this work. If this work involved human participants, informed consent was received from each individual. If this work involved human participants, it was conducted in accordance with the 1964 Declaration of Helsinki. If this work involved experiments with humans or animals, it was conducted in accordance with the related institutions' research ethics guidelines.

References

[1] Bianchi SM, Robinson JP, Milke MA. The changing rhythms of American family life. New York: Russell Sage Foundation, 2006.

- [2] Baxter J. Marital status and the division of household labour: cohabitation vs marriage. Fam Matters 2001 (58):16-21.
- [3] Bronte-Tinkew J, Carrano J, Horowitz A, Kinukawa A. Involvement among resident fathers and links to infant cognitive outcomes. J Fam Issues 2008;29(9):1211-44.
- [4] Chang JJ, Halpern CT, Kaufman JS. Maternal depressive symptoms, father's involvement, and the trajectories of child problem behaviors in a US national sample. Arch Pediatr Adolesc Med 2007;161(7):697-703.
- [5] Lamb ME, Lewis C. The development and significance of father-child relationships in two-parent families. In: Lamb ME, ed. The role of the father in child development. Hoboken, NJ: John Wiley, 2004:272-306.
- [6] Lamb ME, Tamis-Lemonda C. The role of the father: An introduction. In: Lamb ME, ed. The role of the father in child development. Hoboken, NJ: John Wiley, 2004:1-31.
- [7] Cheung AKL, Kim EHW. Domestic labor, attitudes, and women's marital satisfaction: A longitudinal study in Korea. J Fam Issues 2018;39(16):3931-55.
- [8] Qian Y, Sayer LC. Division of labor, gender ideology, and marital satisfaction in East Asia. J Marriage Fam 2016;78(2):383-400.
- [9] Craig L. Parental education, time in paid work and time with children: An Australian time-diary analysis. Br J Sociol 2006;57(4):553-75.
- [10] Craig L, Mullan K. How mothers and fathers share childcare: A cross-national time-use comparison. Am Sociol Rev 2011;76(6):834-61.
- [11] Craig L, Mullan K, Blaxland M. Parenthood, policy and work-family time in Australia 1992-2006. Work Employ Soc 2010;24(1):27-45.
- [12] Heisig JP. Who does more housework: Rich or poor? A comparison of 33 countries. Am Sociol Rev 2011;76(1): 74-99
- [13] Sabattini L, Leaper C. The relation between mothers' and fathers' parenting styles and their division of labor in the home: Young adults' retrospective reports. Sex Roles 2004;50(3-4):217-25.
- [14] Windebank J. Social policy and gender divisions of domestic and care work in France. Mod Contemp Fr 2012;20(1):21-35.
- [15] Craig L, Powell A. Non-parental childcare, time pressure and the gendered division of paid work, domestic work and parental childcare. Commun Work Fam 2013;16(1):100-19.
- [16] Kaufman G, Bernhardt E. Gender, work and childbearing: couple analysis of work adjustments after the transition to parenthood. Commun Work Fam 2014: 1-18.
- [17] Mandel H. Rethinking the paradox: Tradeoffs in work-family policy and patterns of gender inequality. Commun Work Fam 2011;14(2):159-76.

- [18] Almqvist A-L, Duvander A-Z. Changes in gender equality? Swedish fathers' parental leave, division of childcare and housework 1. J Fam Stud 2014;20(1):19-27.
- [19] Hegewisch A, Gornick J. The impact of work-family policies on women's employment: a review of research from OECD countries. Commun Work Fam 2011;14(2): 119-38.
- [20] Tanaka S, Waldfogel J. Effects of parental leave and work hours on father's involvement with their babies: Evidence from the millennium cohort study. Commun Work Fam 2007;10(4):409-26.
- [21] Gaunt R. Social psychological predictors of involvement in childcare: the mediating role of changes in women's work patterns after childbirth. Commun Work Fam 2018:1-20.
- [22] Eerola P. Nurturing, breadwinning, and upbringing: paternal responsibilities by Finnish men in early fatherhood. Commun Work Fam 2014;17(3):1-17.
- [23] Martínez P, Carrasco M, Aza G, Blanco A, Espinar I. Family Gender Role and Guilt in Spanish Dual-Earner Families. Sex Roles 2011;65(11):813-26.
- [24] Buber-Ennser I, Panova R. Attitudes towards Parental Employment across Europe, in Australia and in Japan. Austrian Acad Sci. 2014;5:1-23.
- [25] Deutsch FM. Undoing Gender. Gend Soc 2007;21(1): 106-27.
- [26] Känsälä M, Oinas T. The division of domestic work among dual-career and other dual-earner couples in Finland. Commun Work Fam 2016;19(4):438-61.
- [27] Sundström M, Duvander AE. Gender division of childcare and the sharing of parental leave among new parents in Sweden. Eur Sociol Rev 2002;18(4):433-47.
- [28] Ferree MM. Filling the glass: gender perspectives on families. J Marriage Fam 2010;72(3):420-39.
- [29] Risman BJ. Gender as a social structure: theory wrestling with activism. Gend Soc 2004;18(4):429-50.
- [30] Fok HK, Shek DTL. A methodological critique of parenting research in Hong Kong. PolyU IRA 2011: 93-9.
- [31] Lam CM, To SM, Kwong WM. Development and validation of a questionnaire on Chinese parents' beliefs in parental roles and responsibilities. Appl Res Qual Life 2018: 1-20.
- [32] Shek DTL, Sun C. Parenting in Hong Kong: Traditional Chinese cultural roots and contemporary phenomena. In: Selin H, ed. Parenting across cultures: childrearing, motherhood and fatherhood in non-Western cultures. Dordrecht: Springer, 2014:25-38.

- [33] Guo J, Xiao S. Through the gender lens: a comparison of family policy in Sweden and China. China J Soc Work 2013;6(3):1-16.
- [34] Yi CC, Chien WY. Does conjugal disparity affect marital relations? A comparative study of Taiwan, Shanghai and Hong Kong. Curr Sociol 2006;54(2):229-55.
- [35] Bernhardt E, Noack T, Lyngstad TH. Shared housework in Norway and Sweden: Advancing the gender revolution. J Eur Soc Policy 2008;18(3):275-88.
- [36] Becker G. A Treatise on the family. Cambridge, MA: Harvard University Press, 1981.
- [37] Coverman S. Explaining husbands' participation in domestic labor. Sociol Q 1985;26(1):81-97.
- [38] West C, Zimmerman DH. Doing gender. Gend Soc 1987;1(2):125-51.
- [39] Brines J. Economic dependency, gender, and the division of labor at home. Am J Sociol 1994;100(3): 652-88.
- [40] Census and Statistic Department. Report on Annual Earnings and Hours Survey. Hong Kong, Census and Statistics Department, The Government of Hong Kong, Special Administrative Region, 2018. URL: https:// www.censtatd.gov.hk/hkstat/sub/sp210.jsp?productCod e=B1050014.
- [41] UBS. The Swiss Investment Bank (UBS): Price and Earning Report (2015). Switzeland, UBS, 2015. URL: https://files.illinoispolicy.org/wp-content/uploads/2015/09/ubs-pricesandearnings-2015-en.pdf.
- [42] Baxter J, Hewitt B, Western M. Post-familial families and the domestic division of labour. J Comp Fam Stud 2005;36(4):583-600.
- [43] Duncan S, Edwards R. State welfare regimes, mothers' agencies and gendered moral rationalities. In: Kollind K, Peterson A, eds. Thoughts on family, gender, generation and class: A Festschrift to Ulla Bjornberg. Gottenburg, Sweden: Sociology Institute, 2003:2-23.

Submitted: March 17, 2019 Revised: April 07, 2019 Accepted: April 14, 2019 Copyright of International Journal of Child & Adolescent Health is the property of Nova Science Publishers, Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.