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Effects of part-time work on adolescent development in Korea

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Abstract

Reflecting fast-growing adolescent populations involving in part-time work in the Korean context, we tackle the issue of youth part-time employment. Even though previous research has documented the negative effect of part-time employment on adolescent development, it is still controversial whether the undesirable effect stems from differential socialization shaped by part-time work, because the different selection issue remains unsolved. Thus, we explored the effects of part-time work experience on problem behaviors and school disengagement, using Propensity Score Matching (PSM) analysis. Our findings from the Korean Education Employment Panel data illuminate that part-time work had significantly negative effects on four outcome variables (i.e., drinking, smoking, disciplinary punishment, and unexcused absence) even after pre-existing differences between groups were controlled by the PSM. Implications for the finding are reviewed.

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Keywords: Part-time work; Korean adolescents; adolescent development

1. Introduction

With the recent change of the whole Korean labor market that fosters more flexible labor forces than ever before (Eun, Oh, & Yoon, 2008), there have been fast-growing adolescent populations involving in part-time work. A recent policy report points out that approximately, a third of Korean middle and high school students had a part-time work experience (Jun & Nho, 2003). This dramatic demographic trend in the Korean labor market is not just numeric but also substantive because 1) negative socialization experience of adolescents involving in part time work (e.g., underpayment and human rights violations) have been reported (Jun & Nho, 2003; Lee & Park, 2006) and 2) undesirable social outcomes such as low educational outcomes (Kim, 2003) and adolescent delinquency (Moon, 2003) have been also found as a salient phenomenon among adolescents involving in part-time work in Korea.

Even though a few studies using national data tried to capture the negative influence of part-time work on adolescents' developmental outcomes (e.g. Jun & Nho, 2003; Kim, 2003; Kim & You, 2006; Lee & Park, 2006), it is not clear whether those negative outcomes are "caused" by "differential socialization" (Greenberger & Steinberg, 1986), embedded in youth part-time work. This is because existing studies failed to consider "selection bias." In other words, it is still unclear whether those negative developmental outcomes reported in previous research are

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because of either certain negative mechanism embedded in adolescent part-time work or because of certain disadvantaged characteristics of adolescents (e.g. low-achieving or low SES students) involving in part-time work.

With this in mind, we aim to investigate causal-relations between part-time employment and key youth developmental outcomes. In particular, we pay special attention to problem behavior (i.e., drinking, smoking, disciplinary punishment, and run-away from home) and school disengagement (i.e. unexcused absence, so-called cutting class). Implications are reviewed for future research, policy, and practice in this final section.

2. Two Contrasting theoretical perspectives

Compared to the dearth of research on youth part-time employment in Korea described above, a number of studies on the issue have been conducted in the Western society. Even though the socio-cultural meanings of adolescent part-time work may differ by countries, it is useful to take a closer look at Western-based research on this issue, because certain characteristics of adolescence are quite universal across the continents. Indeed, similar to recent research in Korea, a majority of previous research in the Western society has also indicated undesirable relationships of adolescents' part time work with adolescent development such as delinquent behaviors and educational outcomes (Bachman & Schulenberg 1993; Bachman et al., 2003; McCoy & Smyth, 2007; McNeal, 1997; Mihalic & Elliott 1997; Ploeger 1997; Steinberg, Fegley & Dornbusch 1993; Steinberg & Dornbusch 1991; Tanner & Krahn 1991;).

Amid this consistent research finding, Steinberg et al. (1993) and McNeal (1997) raised an important question—i.e. whether the correlations of youth part-time jobs with negative developmental outcomes are due to the consequences of part-time work itself or not. While McMorris and Uggen (2000) argued that intensive part-time work itself is one effect promoting problem behaviors such as alcohol use, Steinberg and Dornbusch's (1991) pointed out adolescents who use alcohol may be more predisposed to participate part time work in order to earn money for alcohol use.

These different stances on the same result—i.e. negative effects of youth work on drinking and smoking—represent different theories they rely on. That is, researchers who are camped in a different selection perspective seem to highlight certain predisposed conditions (e.g. originally drinking or smoking students before they participate in part-time jobs) of youngsters who involved in part-time jobs. In contrast to this, other researchers who are based on a different socialization perspective seem to place a more emphasis on certain underlying mechanism in youth part-time jobs.

3. Research questions

To investigate the two contrasting theoretical perspectives, our analyses focus particularly on answering the following main question: does part-time work during school years result in increased problem behaviors and school disengagement?

4. Methods and analysis

This study uses the Korean Education and Employment Panel (KEEP), which was initiated in 2004. Total 1,365 students (12th graders in 2007) are included in the final analysis and their work experiences during school years (from 2004 to 2007) were traced. To adjust pre-existing difference between students with and without work experience, propensity score matching (PSM) analysis was employed. After a matched control group was selected, a series of logistic regressions were conducted on three dichotomous dependent variables (drinking, smoking, and disciplinary punishment). To control the influence of factors other than labor market participation, the following variables were also included in both PSM and logistic analyses: school factors (school type, relation with teacher, and school satisfaction), family factors (city size, relationship with parents, family income, parents' education, number of children, and family satisfaction), and student factors (gender, self-efficacy, self-awareness, educational inspiration, academic achievement, and satisfaction with pocket money).

5. Results

Table 1 shows the background characteristics of students involved in this study before and after the propensity score matching. The original sample, before matching, includes 877 students with no work experience and 488 students with work experience. The left half of the table illustrates that part-time work experience is associated with disadvantaged background characteristics. We employed the PSM technique (1-to-1 match with replacement) to solve this problem, and obtained the sample of 481 and 271 students with and without work experience, respectively. The right half of Table 1 presents the background characteristics of the two groups after their matching propensity scores. It shows that all the pre-existing differences disappeared. Even though unobserved differences might still exist after the matching, no significant association exists any more between work experience and the observed characteristics.

Table 1. Background Characteristics (%)

	Before Matching			After Matching		
	No Work (n=877)	Work (n=488)	χ^2 test/ t-test ^a	No Work (n=271)	Work (n=481)	χ^2 test/ t-test ^a
School Factors						
School Type			$\chi^2(1)=134.07^{***}$			$\chi^2(1)=.51$
General school	84.95	56.56		55.09	57.38	
Vocational school	15.05	43.44		44.91	42.62	
Relationship with Teacher ^b	2.60	2.59	$t = -.38$	2.53	2.65	$t = -1.09$
School Satisfaction ^b	3.38	3.18	$t = 4.71^{***}$	3.24	3.17	$t = .97$
Family Factors						
Living Area			$\chi^2(3)=6.09$			$\chi^2(3)=4.52$
Seoul	18.36	14.34		11.23	14.55	
Metropolitan city	29.53	27.05		25.36	27.23	
City	31.24	35.04		35.14	34.72	
Town/County	20.87	23.57		28.27	23.49	
Parenting ^b	3.65	3.50	$t = 5.95^{***}$	3.58	3.51	$t = 1.86$
Income ^b	339.17	270.76	$t = 2.4^*$	284.12	279.14	$t = .40$
Biological Parents			$\chi^2(1)=16.47^{***}$			$\chi^2(1)=.23$
Both	92.82	86.07		87.53	86.49	
All other cases	7.18	13.93		12.47	13.51	
Parents' Level of Education			$\chi^2(2)=28.22^{***}$			$\chi^2(2)=3.50$
Lower than HS	13.45	17.62		15.18	16.84	
High School	50.4	60.04		56.96	60.5	
College or higher	36.15	22.34		27.86	22.66	
Number of children			$\chi^2(2)=1.78$			$\chi^2(2)=1.36$
One	5.82	7.17		5.82	7.28	
Two	69.56	66.39		65.28	66.32	
Three or more	24.63	26.43		28.90	26.40	
Family Satisfaction ^b	3.78	3.48	$t = 5.53^{***}$	3.54	3.51	$t = .40$
Student Factors						
Gender			$\chi^2(1)=.62$			$\chi^2(1)=1.20$
Male	50.17	47.95		51.98	48.44	
Female	49.83	52.05		48.02	51.56	
Self-Efficacy ^b	3.176	3.152	$t = 1.20$	3.16	3.16	$t = .18$
Self-Awareness ^b	3.51	3.51	$t = .20$	3.50	3.51	$t = -.35$
Educational Aspiration			$\chi^2(4)=80.12^{***}$			$\chi^2(4)=1.70$
High school	2.85	6.97		7.07	6.86	
College (2-3 years)	14.48	32.17		30.77	31.81	
College (4-6 years)	63.51	47.95		48.65	48.23	
Grad. School (Master)	10.38	7.58		6.44	7.69	
Grad. School (Ph.D.)	8.78	5.33		7.07	5.41	
Academic Achievement ^b	3.879	4.53	$t = -6.73^{***}$	4.23	4.39	$t = -1.37$
Satisfaction with Pocket Money ^b	3.35	3.01	$t = 6.32^{***}$	3.09	3.03	$t = .74$

Note: a. χ^2 tests were performed for categorical variables and *t*-test for continuous variables (degree of freedom: before matching = 1,363; after matching = 750); b. Numbers in the table are not percentage but mean scores of the group. * $p < .05$, ** $p < .01$, *** $p < .001$

After PSM, to examine the effect of part-time work experience on problem behaviors, a series of logistic regressions were executed on the following outcomes: smoking, drinking, disciplinary punishment, run away from home, and unexcused absence. For all outcome domains of problem behaviors except run-away from home, part-time work experience was found to be a significant predictor. Specifically, it increased the odds ratios of smoking by 5.26 ($p < .001$), drinking by 2.74 ($p < .001$), disciplinary punishment by 11.63 ($p < .001$), and unexcused absence by 2.86 ($p < .01$). Since pre-existing differences were controlled by PSM, and a variety of background factors were included in the analysis, these findings can be interpreted as the net effects of part-time work on the outcomes. That is, part-time employment during school years results in negative effects on behavioral outcomes.

In addition to the part-time work experience, school type, gender and academic achievement had a significant influence on the increased problem behaviors. Compared to the students attending general schools, students in vocational schools were more likely to smoke (O.R.=1.87; $p < .05$), to drink (O.R.=1.93; $p < .01$), to receive disciplinary punishment (O.R.=3.07; $p < .01$), and to be absent from school without excuse (O.R.=3.53; $p < .001$), where other conditions were constant. Gender was found to be a strong predictor on smoking, drinking, and disciplinary punishment. The likelihood of each outcome among female students was only a 15% ($p < .001$), 60% ($p < .01$), and 45% ($p < .05$) of the male students' one, respectively. Students with lower academic achievement had the increased risk of problem behaviors in all domains except disciplinary punishment. As their academic performance rank increased by one unit, so did the likelihood of smoking, drinking, run-away from home and unexcused absence, by 1.36 ($p < .001$), 1.16 ($p < .05$), 1.53 ($p < .05$), and 1.33 times ($p < .01$), respectively.

Other factors were influential on one or two outcomes selectively. Higher school satisfaction was associated with lower chance of drinking and unexcused absence from school. The odds of unexcused absence decreased by a half ($p < .05$) if students were living in either metropolitan cities or cities compared to the students in Seoul. Students residing in towns were 2.75 times ($p < .001$) more likely to drink than their peers in Seoul. Family income had an effect on drinking experience. As the logarithm of monthly family income increased by one unit, the odds of drinking rose by 1.5 times ($p < .05$). Higher satisfaction about the amount of pocket money was linked to the lower chance of drinking ($p < .01$).

6. Discussion and Conclusion

Our research question centered on seeking an answer between the two positions: different selection vs. differential association. The comparison after matching their propensity scores shows that all the pre-existing differences disappeared after the matching (see Table 1). Even though unobserved differences might still exist after the matching, as far as the observed characteristics are concerned, it is fair to say that no significant difference in background characteristics exists between the two groups. This result leads us to take a theoretical turn to the different association (or socialization) perspective. Furthermore, a series of logistic regressions reaffirm the negative effects of part-time work experience on problem behavior and school disengagement, which is consistent with a body of previous research (e.g., Bachman et al., 2003; McCoy & Smyth, 2007; McNeal, 1997; Mihalic & Elliott 1997; Steinberg, Fegley & Dornbusch 1993; Steinberg & Dornbusch 1991).

Drawing from our findings, we argue that part-time work during school years has negative effects on adolescent development, in particular, delinquency-related behaviors. To ensure our estimates, we employed the PSM techniques, which minimize selection biases. Based on our findings, in terms of policy and practice, we call for certain institutionalized supervisions and systems for guiding adolescent part-time work. The negative effects of part-time work imply that there is a certain underlying mechanism, which promotes certain negative sub-culture or practice of adolescent behaviors. The current lack of institutional guidance seems to exacerbate the undesirable impact. Considering the recent change of macro-labor market towards labor flexibility and more self-independent attitude of youngsters in Korea, it is not practically meaningful to say to adolescents "do not involve in part-time work" in a real world situation. Rather, certain institutional guidance for adolescent to navigate and engage in meaningful part-time work experience is important.

In terms of research, our research brings benefits to future work on this issue. Because our priority was on shedding light on inconsistent findings of previous research, based on either different selection or differential association, we did not place an emphasis on the discrepant effects of part-time work, according to its types or

intensity (e.g. working hours). Thus, future research equipped with PSM may benefit by specifying those discrepant effects by the types and intensity of part-time work.

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