

Research Article

The Developmental Outcomes of Children Born to Parental Substance Abusers Supported by Local Counselling Centres for Psychotropic Substance Abusers in Hong Kong

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Abstract

Background: Even though the harmful influences of parental substance abuse on children have been well studied globally, statistics on these children's impacts in Hong Kong were not generally available. In this

study, we aimed to assess the effects of drug-abusing parents on their children via a previous survey conducted at local drug treatment and rehabilitation centres in Hong Kong.

Methods: Data were collected from 124 previous surveys of substance abuse parents having children under the age of 12 using convenient sampling. The survey consisted of three domains, totalling 34 questions: basic information about the participants and their families, substance abuse experiences in the past six months, and the history of received services.

Results: Substance abuse parents had a high widowed/divorced/separated rate and unemployment rate. They were less likely to take care of children by themselves, especially substance abuse fathers, 17.62 times than substance abuse mothers ($p < 0.001$). A high proportion of children at primary school age (6-12) were diagnosed or suspected special education needs (SEN) cases, accounting for 13.3%. About 15% of children and their parents showed child abuse risk factors.

Conclusions: The parental substance abuse and the family's poor marital and financial conditions negatively affected the optimal care and good-enough parenting provision for children, leading to poor developmental outcomes and an increased risk of behaviour problems.

Keywords: Parental Substance Abuse; Child Caring; Parenting; Children Development

1. Introduction

Substance abuse remains one of the major health problems in Hong Kong. Although a declining trend appeared in recent years, the increased drug abuse history before their first report by the agencies reflected a big concern of hidden substance abuse. They tended to take drugs at home and were hardly identified by the Central Registry of Drug Abuse

(CRDA) [1, 2]. In Hong Kong, a total of 6611 substance abusers were reported in 2018, accounting for a 53% decrease from 2009, but the median drug abuse history of newly reported cases raised from 2.1 years to 4.7 years. Furthermore, according to the CRDA sixty-eighth report, 58% of reported drug abusers took substances only at home or at the houses of friends, 42% higher than in 2009. Parental drug-abusing behaviour has a significant impact on the developmental outcomes of their children. To our best knowledge, the statistics on parental substance abuse in Hong Kong still lacked. In contrast, many studies globally have demonstrated the poor influence on the young generation whose parents were substance abusers.

Parental substance use can seriously and negatively impact children's physical and mental health across their development. Firstly, the illicit drug itself can be a traumatic exposure that affects the physical health of their offspring. Some studies have revealed the association between maternal cocaine abuse and the decreased anthropometric growth of infants [3, 4]. Other consequences, such as an increased risk of cardiovascular and musculoskeletal abnormalities, and an increased risk of malformations, were also found among babies born to parents with drug-taking history [5, 6]. Moreover, findings from studies exploring children born to substance-dependent mothers indicated that adverse neurodevelopment could happen to these children, including deficits in cognitive and socio-emotional functions and retardation of speech and language development [5, 7, 8]. However, studies have also proposed that these children could benefit from long-term developmental follow-up and early intervention services [9].

Secondly, substance abuse parents always entail poor caring, leading to adverse childhood experiences, another form of trauma [10]. As these parents spend more time on drugs and some have been jailed or imprisoned multiple times; thus most of the time, they have difficulty caring for their children. For young children in self-care, they can be vulnerable, and their hygiene and safety become worrying. A study has shown that a tremendous proportion of these children had medical or nutritional disorders [11]. On the other hand, accidental substance poisoning in children was rare but sometimes life-threatening. Parents addicted to illicit drugs might store substances in unsafe containers at home, and hence children misuse results in an emergency or even death [12-15]. These children were subjected to a higher possibility of child neglect [16-18]. Families with addicted adults predominantly suffer from life adversities, resulting in an extreme level of stress. Thus their children can have lifelong health consequences due to the intense and frequent exposure to this toxic stress due to the unavailability of a stable caretaker and responsive parenting [19].

In this case, neglect and maltreatment commonly occur in children who grow up in a family where one or both parents take drugs. These children are more prone to develop emotional and behavioural problems [20]. Without establishing a secure attachment between the children and their parents, it leads to a deprivation of optimal environmental stimulation for the children as these parents are addicted to taking substances. As a result, children can have developmental problems, such as speech delay, and it might also be difficult for these children to build a healthy relationship or have psychological problems. In Hong Kong, multi-disciplinary case conferences on prote-

cting children with suspected abuse (MDCCs) will assess the family for taking care of the children. Children under high risk will be separated from their parents for months or even years and arranged with a residential care service or a foster family [21]. However, without well reunion planning, this can lead to a poor parent-child relationship and cause many adverse effects.

For instance, they are more likely than others to show problematic risk behaviours, such as fighting, run away from home, and erratic school attendance. Furthermore, substance abuse parents always get trapped in a vicious cycle of poor parenting and the stress of drug-related financial difficulties, marriage breakdown, and health problems. Besides, parental substance abuse also increases the risk of drug use and criminal activities among teenagers, as in a Hong Kong drug abuse report, 43% of young drug abusers aged under 21 had records of conviction [1, 11, 22].

As mentioned above, early interventions can help children and their families from poor outcomes. There is a government funding service in Hong Kong known as the Comprehensive Child Development Service (CCDS), which was first piloted under the 2005 Policy Address to offer an early integrated community-based child and family service. This funding aims to identify the children and families in need and integrate the medical and health, social and education services to these children promptly. Maternal and Child Health Centre (MCHCs) and Department of Health (DH) is the platform for CCDS. DH works closely with the Hospital Authority (Department of Paediatrics and Adolescent Medicine, Department of Obstetrics and Gynaecology, and Department of Psychiatry), Social Welfare Depart-

ment and the Education Bureau in targeting CCDS to 0-5 years old children in Hong Kong. CCDS in Kowloon East Cluster has been collaborating with Rainbow Lutheran Centre to provide a holistic intervention to the expectant mothers who were substance abusers since 2010. The collaboration aims to optimize the developmental outcomes of their offspring. In contrast, the collaboration with Cheer Lutheran Centre by CCDS in the New territories West cluster was implemented around eight years later. In this study, we aimed to evaluate the effects of drug abuse parents on their children via a survey conducted at local drug treatment and rehabilitation centres in Hong Kong.

2. Method

2.1 Procedure

For this study, we used convenient sampling to obtain data from a previous survey of substance abuse parents having children under the age of 12 conducted at the Cheer Lutheran Centre and the Rainbow Lutheran Centre in 2019. Cheer Lutheran Centre and Rainbow Lutheran Centre are two counselling centres for psychotropic substance abusers (CCPSAs) in Hong Kong that help people withdraw from drugs and rebuild a healthy life. In addition, they provide detoxification counselling support for substance abuse parents and help them restore confidence in parenting by building a healthy social network.

2.2 Questionnaire

The questionnaire consisted of three domains: basic information about the participants and their families, substance abuse experiences in the past six months, and history of received services. In the first domain, participants were asked 19 questions on their age, gender, marriage, family history, medical history,

employment, and financial condition, as well as information about their children's age, special education need (SEN), and problematic behaviours. In the second domain, participants were asked seven questions about their substance abuse experiences and related behaviours in the past six months. In the third domain, there were eight questions about the services that the participants and their children have received.

Some questions within the survey also contained an 'other' option where specific text could be filled, if appropriate. As the survey used 'family' as the smallest unit, only the mother's information would be recorded if both the mother and father were substance abusers and registered with the centre.

2.3 Statistics

Participants' data were extracted from 124 questionnaires from two centres, 45 from Cheer Lutheran Centre and 79 from Rainbow Lutheran Centre. Descriptive statistics were presented for the data. Chi-square test and independent samples t-test were used for comparison of proportions and means. Odds ratios (ORs) and corresponding 95% confidence intervals (95% CIs) were obtained by logistic regression to control for confounding. A p-value <0.05 was considered statistically significant. All the data were analysed using SPSS 25.0 software (IBM, New York, USA).

2.4 Ethics

All procedures followed were in accordance with the ethical standards of the Joint Chinese University of Hong Kong – New Territories East Cluster Clinical Research Ethics Committee.

3. Results

3.1 Comparison between male and female abusers in demographic variables

The demographic information of 124 substance abusers (27 males and 97 females) was summarised in Table 1. The number of female subjects was over two times more than male subjects. Compared to females, of which the mean age was 29.99 (sd. 5.72), males in this study were significantly older ($p=0.001$), with a mean age of 34.46 (sd. 5.90). Almost all participants were Chinese and have lived in Hong Kong for seven years or more (99.2%). In total, only 34.1% were currently married, and there was a significant difference between males and females in their marital status ($p=0.031$). Furthermore, we found that the unemployed percentage was significantly higher in females than males, accounting for 62.9%. In this case, the primary source of income for males was their salary, while females were more dependent on social welfare ($p=0.002$). In addition, there were 10 male participants (37.0%) and 37 female participants (38.1%) that reported financial difficulties in the past 6 months of the study period. The financial difficulties included rent/bill/tuition fee arrears, borrowing money for daily living, starvation/food bank, bankruptcy, illegal work/crime, in debt. Still, the proportion was not significantly different between males and females ($p=0.231$).

3.2 Substance abuse experience of participants

The top three abused drugs reported in this study were methamphetamine, ketamine, and cocaine. Some subjects were poly-drug users, and the most common combination was cocaine and methamphetamine (33.3%). The frequency of drug use was classified as intermittent and habitual. In the past 180 days, most participants used drugs intermittently,

especially ketamine and heroin, accounting for over sixty per cent. Among all subjects, only a few reported drug use at home in the past 180 days, but about fifteen and twenty per cent of them reported hidden tools and substances at home for convenience. Over eighty-five per cent of abusers reported that adult residents who lived with them knew their substance abuse experience, but only about seven per cent of their children knew that.

3.3 Comparison between male and female abusers in children caring

A total of 200 children was involved in this study, and the average age was 4.58 (sd. 2.67). There was a significant difference between Cheer Lutheran Centre and Rainbow Lutheran Centre on children's average age ($p=0.022$), of which was 3.10 (sd. 2.50) and 4.09 (sd. 2.74), respectively. Over sixty-five per cent of children were living with their fathers or mothers, either every day or intermittently. On the other hand, a small proportion of children did not live with their families (22.0%) placed in the residential child care during the study period. About 30% of participants reported that they took care of children by themselves, whereas most sought help from their families or partner (64.6%). We found the proportion of females who took care of their children on their own was considerably higher than males, and the difference was significant ($p<0.001$). The logistic regression result in Table 2 illustrated that it was 17.62 times likely that substance abusers sought help from their family/partner rather than took care of children on their own if they were substance abuse fathers.

3.4 Effects of parental substance abuse on children's development

As the mean age of children was around four and a

half, over fifty per cent of children were not at school-age, while almost all the rest of children received a whole-day or half-day schooling. However, in this study, around 13.3% of children at primary school age (6-12) were diagnosed or suspected special education needs (SEN) cases. Furthermore, children's SEN condition was significantly associated with parental working and financial conditions ($p < 0.001$ and $p = 0.014$). Here, the multinomial logistic regression was employed to determine that children were more likely to be diagnosed or suspected if at least one of their parents were unemployed substance abusers relative to no special education needs. In our study, 53.6% and 53.2% of the participants and their children from Cheer Lutheran Centre and Rainbow Lutheran Centre joined the CCDS, respectively.

3.5 Effects of parental substance abuse on children's behaviours

Finally, information about child abuse risk factors was also collected. There were 19 participants (15.3%) who reported conditions, such as school absenteeism, social issues, skin conditions/head louse, speech delay, hygiene issues, leaving home alone, corporal punishment, substance misuse poisoning, and home accident injury. However, over sixty-five per cent of participants reported no problems with their children. Furthermore, we found that relative to children and parents who showed child abuse risk factors, substance abuse fathers or mothers without financial difficulties were less likely to have these behaviours.

	Male (N=27)	Female (N=97)	Total (N=124)	P-Value
Age (mean, SD)	34.46 (5.90)	29.99 (5.72)	30.93 (6.02)	0.001*
Marital status (n, %)				0.031*
Married	16 (59%)	26 (27%)	42 (34%)	
Separated/Divorced	6 (22%)	27 (28%)	33 (27%)	
Single	3 (11%)	23 (24%)	26 (21%)	
Cohabitation	1 (4%)	16 (17%)	17 (14%)	
Widowed	1 (4%)	4 (4%)	5 (4%)	
Employment (n, %)				0.001*
Employed	20 (74%)	32 (33%)	52 (42%)	
Unemployed	7 (26%)	61 (63%)	68 (55%)	
Unknown	0	4 (4%)	4 (3%)	
Income (n, %)				0.002*
Social welfare	8 (28%)	47 (47%)	55 (43%)	
Own salary	19 (66%)	28 (28%)	47 (36%)	
Family support	2 (7%)	24 (24%)	26 (20%)	
Unknown	0	1 (1%)	1 (1%)	
*p-value < 0.05				

Table 1: The demographic variables of participants.

	OR	P-value	95 % Confidence Interval	
Male	17.620	0.007*	2.153	144.192
Parental age	0.993	0.879	0.910	1.084
Child age	0.992	0.928	0.828	1.188
*p-value < 0.05				

Table 2: The association of parental age, gender, and child age on caring for children, either by themselves or by family/partner.

4. Discussion

This study used data obtained from a previous survey on substance abusers registered with local drug treatment and rehabilitation centres to evaluate the effects of parental substance abuse on children. We observed that parents addicted to illegal drugs were more likely to be stuck with marital and financial problems and were not very good at parenting. In this study, the marriage rate was 59.3% for males and 27.1% for females, which were lower than 62.5% and 56.0% for males and females of the overall population in Hong Kong, respectively. However, their widowed/divorced/separated proportion was much higher than the general population, which was 25.9% and 32.3% for males and females, as in 2019 Hong Kong key statistics, the proportion of widowed/divorced/separated males were 6.2%, and that of females was 16.7%. A higher divorce rate among substance abuse fathers and mothers could be a reason for children’s poor developmental outcomes since it might have a more significant impact on their children, accompanied by poorer parenting. This finding was supported by a longitudinal study, which suggested that children from divorced families showed more significant behaviour problems than peers [23].

On the other hand, we found the median age of women in this study at first childbirth was under 26

years and for some even under 18 years, which was lower than 31.9 years of the general population [24]. Findings from studies revealed that children born to young mothers are associated with a higher risk of maltreatment, poor growth, and a change in primary care. Drug-dependent young mothers might further lead to poor mental health, emotional symptoms, and hyperactivity/inattention problems [25, 26]. Substance abusers often suffer from mental and physical health conditions, which impedes them from finding a job to be more likely to struggle with financial problems. Our study found substance abusers who had children even had a higher unemployment rate than general substance abusers, which was 44.1% in CRDA in 2018 [1]. In this case, they had already exhausted themselves coping with drugs and life and thus neglect caring for children. Moreover, the unequal unemployment rate between the gender further tipped the balance in the responsibility of child care, as we found substance abuse fathers were about 18 times more likely to seek help from their families/partners rather than take care of children by themselves. We investigated their special education needs (SEN) for the potential influences of parental substance abuse on children’s development. The proportion of children at primary school age (6-12) with diagnosed or suspected SEN cases in this study was 13.3%, which was much higher than the general

population, accounting for 8.3% (2018/19) [27]. Furthermore, children's poor school performance could be associated with their parents' drug-related convictions, as some participants reported awaiting trial/judgement, probation order, and suspended sentence during the study period. Some also teetered on the edge of sentences due to illegal work or crimes. Our finding was consistent with the study of Gifford et. al..[28].

Some limitations were presented in our study. Firstly, this was not enough evidence from a cross-sectional study to establish a genuine causal relationship between parental substance abuse and children's poor developmental outcomes. Secondly, a retrospective study was subject to confounding effects as the questionnaire was not designed specifically for the current study. Hence, other potential risk factors might be present and not be able to measure. However, Cheer Lutheran Centre and Rainbow Lutheran Centre to represent the general in this study was not a big concern because the same questionnaire was used by the Hong Kong Council of Social Service (HKCSS) for the same purpose at all of the eleven CCPSAs in 2019. Finally, as the children's developmental outcomes was limited to several questions within the current study, future research may consider examining the impact with more quantitative and clinical approaches.

Given that the negative influences from substance-dependent parents were preventable by early interventions many children protective services by health care and welfare terms were adopted in Hong Kong to tackle this problem. However, currently, no precise territory-wide data on substance abuse parents or children under the care of substance abusers is

available. The only drug-related statistics reported by CRDA is based on a voluntary system. Furthermore, the service, like CCDS, as mentioned above, is provided by various disciplines, including the Education Bureau (EDB), the Department of Health (DH), the Hospital Authority (HA), and the Social Welfare Department (SWD). Still, there is no comprehensive database system to share information among the mentioned organisations. Thus, a thorough evaluation of the intervention and subsequent planning of service with different stakeholders along the trajectory of the children is not feasible. Moreover, substance abuse parents are always complicated cases under high risk. In contrast, the insufficient support makes social workers in CCPSAs, the downstream service providers, swamped with works, including but not limited to crisis intervention, parenting support, emotional counselling, and interpersonal relationship. Therefore, we recommend designing a comprehensive e-system for substance abuse parents and their children with multi-disciplines in a coordinated way, facilitating decision-making in clinical management, service evaluation, and resource allocation.

5. Conclusion

In this study, substance abuse parents had severe problems with their marital and financial conditions. On top of their addictive behaviours, which will hinder their abilities to provide responsive parenting to their children, also lead to poor school performance, learning difficulties, problematic behaviours, and increased chance of child neglect in their children.

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