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Social determinants of health in teenage girls involved with sexual exploitation on downtown streets late at night

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ABSTRACT

The purpose of this study was to chronicle the experiences of teenage girls who stay downtown late at night and are involved in sexual exploitation, and to clarify characteristics of their social circumstances and social determinants of health: socioeconomic status and educational opportunities. Between November 2009 and June 2013, we spoke with 89 adolescents who were loitering late at night in downtown Nagoya, Japan. We focused our research efforts on a case series of 22 girls who were 14–19 years of age and were involved in sexual exploitation. Semi-structured interviews were performed with the use of a questionnaire on the girls' sexual and mental health, families, school life, living conditions, and future aspirations. Along with the questionnaires, we analyzed case series interviews with a qualitative approach (narratives-underanalysis by in-depth understanding in context). Nine girls worked in the sex industry, while thirteen were independent sex workers. Our observations included child maltreatment, unstable families, distressing school life, insufficient education, and inappropriate relationships with gangs and similar organizations. Moreover, an illegal sex market was linked with these gang associations. Despite their severe living conditions, most of them hoped to have happy families someday. To provide support to this vulnerable population and support their life aspirations, improvement of public health, social welfare, education, and school health systems should be considered carefully.

Keywords: teenage girls, social determinants of health, socioeconomic status and education, sexual exploitation, social risk

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INTRODUCTION

Many public health researchers and providers are concerned with runaway/homeless youth and sexual exploitation, as the issue is not only about sexually transmitted infections and unintended pregnancy, but also about social discrimination and social determinants of adolescent health, such as socioeconomic status, education, etc. In Japan, journalists have reported that young people loiter and frequent downtown entertainment areas late at night. Some of these young people

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have no long-term goals or their own places. Consequently, these young people stay in public spaces such as parks or downtown streets often late at night. In this environment, they might be sexually exploited. Many specialists in adolescent health are interested in the background of street youths and sexual exploitation.³⁻⁵ Several Japanese studies have conducted research interviewing teenage girls who were either arrested or taken into custody because of their sexual deviation or sexual behavior.⁶ Unlike studies conducted in other countries, only a few have focused their efforts on interviewing young women under free conditions.⁷

As a nongovernmental organization (NGO) team, we voluntarily had weekly Saturday night interactions with adolescents who stay late at night in downtown Nagoya, Japan. 8.9 Since September 2007, these weekly interactions included two-way conversations, emotional support, and mental support. Nagoya is one of the largest cities in Japan, with over two million people. The sex industry used to be a key industry in Sakae, a famous downtown entertainment area of Nagoya. Though declining since the recession at the beginning of the 21st century, the sex industry is still a thriving industry.

The aim of our study was to chronicle the experiences of teenage girls who frequent downtown Nagoya late at night and are involved in sexual exploitation. Our efforts focused on clarifying the characteristics of their social circumstances and social determinants of health: socioeconomic status and educational opportunities.¹⁰

SUBJECTS AND METHODS

Between November 2009 and June 2013, our team spoke with 89 teenagers (60 girls and 29 boys) who were loitering in the downtown entertainment areas, streets, parks, or public spaces late at night in Nagoya, Japan. From these 89 teenagers, twenty-two teenage girls were involved in the sex industry or sexual exploitation. We obtained informed consent while out in the field after explaining the purpose of our efforts and any information shared would be kept anonymous. Once they consented, each subject was interviewed by a semi-structured questionnaire, and their responses were recorded in field notes. The questionnaire consisted of obtaining the following information: age, occupation, school life, family socioeconomic status, sexual experience, gang involvement or the sex industry, future aspirations, and their mental health status. Information about mental health status included questions related to theories of juvenile delinquency such as spending habits, substance abuse, reckless driving, binge eating, self-mutilating behavior, suicidal behavior, and sexual behavior, 11-13 As it was impossible to assess disease status in the field and our teenage subjects did not want treatment, the purpose of the study was not to diagnose psychiatric disease. Each case was analyzed with qualitative methods: narratives-under-analysis by in-depth understanding in context.¹⁴ We assessed the contents of their responses from a social and medical point of view and analyzed issues derived from each case.

Ethical considerations

The Ethical Committee of Research Center of Health, Physical Fitness and Sports, Nagoya University, Nagoya, Japan approved this study (#21-13, #23-16, and #26-20).

All participants were minors who should be under their parents' supervision. However, it was not possible to obtain parental consent since most participants did not want their whereabouts to be known. To respect their wishes, we did not obtain parental consent. As with prior studies, our subjects were considered emancipated minors and we asked them directly for informed consent. Subjects confirmed their willingness to participate in the study with written confirmation on both the consent form and questionnaires. To ensure fairness, we assured each subject that

future publications would include a faithful representation of the interview and they did not have to provide answers to question they found uncomfortable. To avoid social delinquency labels, all data were acquired anonymously without obtaining personal details such as their name and address. We have taken care to ensure our report avoids participant identification. According to article 134 of the doctors' duty of confidentiality in the Japanese Penal Code, any confession to a crime would remain confidential.¹⁷ When we encountered a situation where it was apparent that their lives may be in danger, the interview was terminated and emergency personal, such as the police or welfare facilities for aid and rescue were contacted.

Teenagers who stay downtown late at night are often not listened to by adults and are occasionally abandoned by their parents. We had as essential principle, where we did not question the truth of their statements but accepted them as they were. Because these individuals come from many walks of life, such as panderers, pimps, barkers, sex workers, foreigners living in Japan, and many others, we had a fundamental principle that we should respect those who live this kind of lifestyle regardless of the reasons.

Throughout this study, we did our best to listen to their concerns, to discuss their issues together, and provide the best advice at that time. If they were willing, we would introduce them to appropriate facilities or contact their parents.

RESULTS

For the 22 teenage girl cases, demographic data (Table 1) and a transcript of our conversations in English (translated from Japanese by the authors) are presented in Table 2 and Table 3. Nine girls had experience working in the sex industry. The remaining 13 girls worked as individual sex workers who engaged in *enjo-kosai* ("compensated dating") were paid for companionship and sex.¹⁸ Thirteen girls were under the age of 18 years, where four girls worked in the sex industry and nine girls were individual prostitutes. All the teenage girls we encountered had their first sexual exploitation when they were less than 18 years of age. A 15-year-old girl we met began sex work when she was an elementary school pupil. In most of the cases, their customers who sexually exploited them, were ordinary citizens.^{19,20}

Eleven girls (Case: 1, 5, 6, 13, 15, 16, and 18–22) had unstable family backgrounds and low socioeconomic status (Case: 1, 6, 13, 18, 19, and 21). For these cases, these teenagers lived in an environment absent of affection where they were neglected and mistreated by their parents. These young girls experienced child abuse, neglect, family violence, and family conflict. Girls from affluent as well as poor families were involved in sexual exploitation. Four girls said that their dream was to be wealthy, even though they lived in an average socioeconomic status.

Furthermore, there were teenagers who had school-associated problems (Case: 1–4, 6, 7, 12, 17, and 22) such as poor grades, victims of bullying, truancy, school absences, and pressure from strict school regulations where some of them dropped out of high school.

Table 1 Demographic data of teenage girls involved in sexual exploitation

	Numbers (n=22)
Age	
14–15	2
16–17	11
18–19	9
Occupation	
Junior high school student	2
High school or vocational school student	9
Worker or part-timer	4
Commercial sex worker	3
No occupation	4
Type of sex work	
Brothel	9
Escort (Individual)	13
Girl's impression of her living conditions	
Poor	6
Average	8
Rich	9
Education	
Graduated from junior high school	12
Withdrew from high school	6
High school diploma	2
Sexual trauma*	
Abortion	7
Rape	10
Drug use*	9
Marijuana	7
Stimulant	4
Thinner	3
Gang involvement*	
Gangster organization (including right-wing organization)	3
Motorcycle gang (including reckless driving)	10
Child maltreatment	9
Shop-lifting Shop-lifting	16
Binge eating	10
Have you ever been deserted by your parent?	
Yes	6
Self-mutilation	9
Suicide intention or attempt*	
Intention	7
Attempt	4
Have you thought you shouldn't be here?	
Yes	9
Do you have a dream?	
Yes	19
No	2

^{*}plural answers

Table 2 Narrative data from a case series of teenage girls involved in the sex industry

Narrative data

Case 1 (14-year-old): "I play downtown late at night with my schoolmates every weekend. When I come home late, my parents are usually angry, but I tell them I was working at a part-time job. My family is poor. My schoolteachers make me so irritated and annoyed. I have already had sex with my boyfriend who is two years older. I didn't want to have sex. He begged me to have sex, so I just did. I have experience with enjo-kosai and working in the sex industry. I want money. My dream is to be a hostess."

Case 2 (19-year-old): "My teacher was disgusted with me. He said to me, 'I'll expel you from school,' even though I skipped school for only five days. Our school had strict regulations. I have had experiences with enjo-kosai, Delivery Health, Fashion Health, and Lingerie Pub. The sex work is fun and I don't find it unpleasant. I'm not afraid of sexually transmitted infections. I don't make men use condoms when I do oral sex. But when I allow them to penetrate me with their penis, I make them use a condom. I started sex work after the first enjo-kosai. An old man spoke to me and said that if he could touch my pussy, he would give me 5 000 Yen. After he did it, I went to the police and he was arrested. Another man made me pregnant, and I had an abortion. That made me sick. I'm going to withdraw from the sex industry when I am 20 years old. I often spend 600 000 Yen per month on a Host Club (male companion club). The first thing I want to do now is to play much more. I have no dreams."

Case 3 (19-year-old): "My father is a high school teacher. My stepmother had worked at a nightclub as a hostess. I dropped out of high school and transferred to a correspondence high school, but I dropped out after three months in the end. I experienced enjo-kosai, Fashion Health, and Delivery Health with my schoolmates. In the downtown, a man in his thirties asked me just to watch him masturbate, and he gave me 10 000 Yen. I was crazy about the Host Club, and I spent a lot of money there. A male companion introduced me to the sex industry. The teachers at my school were really sick. One teacher said to me, 'Hey, you, don't come to school!' Of course, I had a compassionate teacher, too. When I was a child and my stepmother worked, I thought I should have never been here. When she worked at the nightclub, she used to give me money to buy packaged food. I would eat the food while sobbing. I intended to commit suicide. My parents didn't pay attention to me. When I was in the sixth grade of elementary school, I tried to go up on the rooftop and climbed over the fence, and I was looking at the ground all the time. But I was still afraid of death. I usually spent a lot of money, about 500 000 Yen per month. I sometimes hit the walls and broke windows. I took part in a motorcycle gang. I want to date, but I don't have a boyfriend now. My dream is to be a wife."

Two months after the first interview, we met her in the street: "I pondered after that time what I should do in the future. I've just decided not to play Host Club frequently, and I've gotten a full-time job as a cook at a foster home, and I will work and do my best." Six months later, she was still working and she told us, "I'm still going right."

Case 4 (19-year-old): "I left high school in the second grade because I had to repeat a year in the same grade. After withdrawing, I graduated from another high school with a correspondence course. I have experience with enjo-kosai and the sex industry. From the first grade to the age of seventeen, I was crazy about enjo-kosai through a dating café. I have experience with Campus Pub, Delivery Health, Nightclub, and Video Pub (hand service). In Delivery Health I used to do fellatio without a condom. I wasn't afraid of sexually transmitted infections, but now I'm afraid of them. When I was in the third grade of junior high school, I had my first sex with my boyfriend. We enjoyed ourselves for three and a half years, but I became pregnant and had an abortion in the second grade of high school. I was too young and thoughtless. When a man and I were drinking together, emboldened by what he had drunk, he raped me. I was to blame, too. It was my mistake to follow him. I cried then. I can laugh at that now. When I was in the third grade of high school, I tried marijuana, which was recommended by the male companion who had sexual relations with me only once. When my parents opposed my dating my boyfriend, suicide crossed my mind. I want money. If I had money, I would want to live it up, buy clothes, and travel around. My dream is to be a homemaker and to be supported by my husband."

Case 5 (18-year-old): "My mother was divorced and left with my younger brother when I was two. It was my brother whom my mother chose. My father gets violent when he drinks, and he kicks, hits, and throws things at me. Because I wanted money, I tried the sex industry and enjo-kosai through an introducer. It pained me to do sex work. When I did enjo-kosai, I thought the customer was one man, but several men came and raped me, and then I was left abandoned on a mountain. The man who was picking up girls gave me marijuana three times. My boyfriend introduced me to reckless driving. When I am alone, I cut my wrist in order not to feel lonely and irritated. I want my own place. I intended suicide because I hated my life. What I want to do now is to work, and I want to work in the sex industry. My dream is to be a bride. But I want to change my life, and I would like to ask you what I should do."

Case 6 (17-year-old): "My family is deep in debt. My stepfather was violent and threw a kitchen knife at me. My mother said to me, 'I'm OK if you die.' I left high school in the first grade. I hated my teacher, even though he may have been a good person. Now I'm running away. I have been raped twice. The first time was when I was in the first grade of junior high school. I reported it to the police, but we couldn't find the offender. The next time was when I was sixteen. I didn't report that to the police. When I was in the first grade of high school, I became pregnant by my boyfriend and I chose abortion. I was at a loss until the day of the operation whether I should have an abortion or not. Because I needed the money for an abortion, I had no choice but to do sex work at Delivery Health. After overdosing on sleeping pills of my mother, I tried to jump from the roof, but I couldn't. My boyfriend is a male companion. He is also deep in debt. I have no choice but to do enjo-kosai by a dating site to keep us alive. I would go to a dating café when I was sixteen, but now it sets the strict age limit. I feel too empty. What should I do tomorrow? My dream is to get married to my boyfriend. For now, I'll only get a license as a beautician."

Case 7 (16-year-old): "I quit high school. I had experience with Delivery Health. I came to feel troubled and annoyed to work at Delivery Health, because of anxiety about sexually transmitted diseases and pregnancy. Although I didn't go to the hospital to confirm this, I had something like rupture of the membranes. My older friends, my boyfriend, and I rode motorcycles together recklessly. Now we sometimes enjoy reckless driving. I tried marijuana and stimulant with my older friends when I was a junior high school student. I sometimes waste a lot of money at the Host Club. I want to work and save money. I get tired of my part-time job. My dream is to open a bar or pub or to get married and be a homemaker."

Case 8 (18-year-old): "I work at Delivery Health because I want money. I try to think about nothing during my work. I always am careful about contraception. I have a dream. I'm going on to school."

Case 9 (16-year-old): "I have been guided and arrested by the police many times. When I was a junior high school student, I was forced to work at Delivery Health. I did enjo-kosai. I used drugs. The yakuza I knew gave me marijuana and stimulant. While taking drugs, I tried suicide. I sometimes think I could die. My dream is to have a happy family."

Table 3 Narrative data from a case series of teenage girls involved in enjo-kosai

Narrative data

Case 10 (18-year-old): "I was a member of a motorcycle gang, and I was invited to join the gang by a member of a right-wing organization. I did enjo-kosai. I was crazy in those days. The first time I had sex it was with a stranger. I tried marijuana, tempted by a man I met on a dating site. I do self-harm without noticing it. I sometimes think that I want to die and that it's better if I don't stay alive. I think the purpose of having sex is just to have a baby. Now I work at a bar. I want to work. My dream is to be rich."

Case 11 (16-year-old): "I live with my friend, as my mother knows. I have never participated in a motorcycle gang. I was tempted to use drugs by the members, but I said to them, 'You're fools!' and rejected it. I had sex for the first time in the second grade of junior high school. As soon as I graduated from junior high school, I became pregnant and had an abortion before I entered vocational school. My boyfriend I lived with at that time kicked me in the stomach. He didn't try to talk about it. We broke up. I don't want to remember it, although I must never forget. Now I try to make my partner use a condom. I want to have sex, but I usually pretend to have sex reluctantly because boyfriend wants. I did enjo-kosai just once. I usually get money from a 35-year-old guest at my Cabaret Club these days. The first thing I want to do now is work. I have nothing but night work. My dream is to get married and have a child. I want to be happy."

Case 12 (17-year-old): "I left commercial high school in the first grade because I didn't like studying. I disliked my teachers. I always think I shouldn't have been born. I have thought of killing myself. Everything looks tiresome. I experienced enjo-kosai by a dating site with a lot of men, but I made them use condoms. The first thing I want to do now is to die. My dream is to be supported by a partner right away."

Case 13 (16-year-old): "I tried thinner and stimulant out of curiosity, as recommended by my older friends. That was my mistake. I did enjo-kosai. I had sex for the first time with my boyfriend when I was in the beginning of the first grade in junior high school. He was four or five years older than me. I had an abortion two years ago. I sometimes think I shouldn't stay alive. My family is poor. The first thing I want to do now is to get money. I have no dreams."

Case 14 (18-year-old): "Since I was a high school student, I have been doing enjo-kosai with men in their thirties to fifties. They give me 30 000 Yen each time. I hate it, I don't want to do it, but I do it to get money. I was raped by a man whom I knew ...in front of others. I was drunk. It was the winter of my second grade in junior high school. I have used drugs: marijuana, cocaine, stimulant, LSD, and thinner. I was tempted by my older friends. I obtained stimulant for 10 000 Yen per gram from drug peddlers. I felt pleasure while using it in the nightclub. I have done shoplifting many times. I was a member of a ladies' motorcycle gang. I have cut my wrist. I sometimes use violence against others when I don't like them. It's fun to watch them bleed when I beat them up. I have never thought of suicide. After enjoying myself in the Host Club, I usually feel empty. I spend 400 000 Yen per month. I want money. It's my pleasure to spend money. The Host Club is everything in my life. My dream is to get married to my sweetheart."

Case 15 (16-year-old): "My mother went away when I was in the second grade of elementary school. But now I can sometimes see her behind the back of my father. My father is tender. I love Dad. I was raped at a love hotel by a 23-year-old man whom I met on a mobile game site. I did enjo-kosai. I was compelled to do it because I had to save money. The buyers were 35- or 40-year-old men. I never want to do it again. I have suffered from chlamydia infection. I often sniff glue. I'm not going to stop using thinner. If someone I loved told me not to use it, I would stop it. It's fun. I get it from my older friends, earning money by enjo-kosai. My parents tell me, 'You can sniff if you want to do. But you'll be sorry for it.' I want to sniff thinner. I eat until I vomit. I cut my wrist. I carved 'Death' on my left wrist when my boyfriend said to me, 'Drop dead!' I intended to commit suicide and actually attempted it, but my friend stopped me and my boyfriend came to help. I don't like to be left alone. My teachers didn't desert me in my schooldays. All my friends are nice people. My dream is to work in a field related to cooking or to help in my grandmother's work."

Case 16 (18-year-old): "My parents sometimes do violence to me, for example, they kick me, but I kick them in return. I did enjo-kosai with a 25-year-old office worker. I was about to be raped in the fourth grade in elementary school by a strange man who forced me into a car. I want to have sex. My first sex was in the second grade in junior high school with my boyfriend whom I loved. I feel empty periodically. I want to have cosmetic surgery on my eyelids. My dream is to be rich and marry a wealthy man."

Case 17 (18-year-old): "I get along with my mother. In my childhood, I took lessons in piano and swimming. I stayed in the same grade in high school because I didn't go to school regularly. At that time, my schoolmates made fun of me, but now it's OK and school is fun. I have a best friend in my school. An acquaintance of another friend gave me stimulant last year. It was supposed to cost 10 000 Yen, but I could get it for nothing in a casino. I broke down just once. Because I was scared of using stimulant and my friend always tenderly stood by me, I could stop it. I don't need stimulant now. But I still use marijuana with several people once a month in a karaoke box. A person involved with vakuza gave it to us for nothing, but I broke with him. I use marijuana out of curiosity. My first sex was when I was 16 years old with a 25-year-old man who picked up me in a nightclub. I had sex for 50 000 Yen with a man about 50 years old whom I met in a dating café. He made me sick. I made him use a condom as I learned in school. I don't like to have sex because it makes me tired, even with my boyfriend. I have never gone out with any boyfriend for more than three months. I am apt to fall in love quickly, but I soon find something that I don't like about him. I change my mind quickly. I'm not haunted by my past loves. I try to go to school every day. I don't put any trust in teachers, because they are not my family. My friends are important. I have a lot of things I want to do. My dream is to be a nursery nurse. I want to go on to vocational school. I like children."

Case 18 (15-year-old): "When my mother abused me, I intended to commit suicide and cut my wrist. I'm always lost in thought in a dark room. My family is, if anything, poor. When I was in the sixth grade in elementary school, I did enjo-kosai three times with a man over 30 years old by a party phone line. After that, he annoyed me to call him. He made me sick. He gave me money. I did enjo-kosai with another man. He told me he did enjo-kosai the first time when I was in the first grade of junior high school. He said to me, 'I saw enjo-kosai was like this...' and gave me money. I usually go to school. I like teachers. My dream is to get married and live happily."

Case 19 (17-year-old): "My parents both died. My family is poor, and my older sister works at another place. My father used to be violent to me. I'm looking for a person who gives me money tonight. My mother deserted me. When I was 16, I was raped and had an abortion. I have participated in reckless driving just once. I have intended to jump off the roof of a building."

Case 20 (17-year-old): "My parents sometimes are violent to me. I usually go to school, but I want to quit school. I intend to enjoy a nightclub tonight. I've never used drugs and I hate them. I haven't participated in reckless driving, but I have been tempted by a gang. I have thought of suicide. I feel tired. I want to earn money. My dream is to work in the apparel business and make money."

Case 21 (16-year-old): "My family is poor. When I entered elementary school, my parents divorced and my father went away, perhaps because of a quarrel with my mother. My mother is a moody person and is sometimes violent. As soon as I became a student in junior high school, I joined a sports club, but I quit it right way. My mother usually prepares our supper. My mother won't desert me, I'm quite sure. When I was in the third grade of junior high school, I had sex with a man whom I got to know from my homepage. I want to make money. My dream is to be a bride. I haven't decided what to do after graduation yet, but my mother will make me go on to college."

Case 22 (16-year-old): "I'm in the second grade of high school. My school is famous for students who go on to university. My grandfather is yakuza, so my family does not have financial difficulties at all. I want to work in the field of welfare or medical practice, because I want to keep on working after marriage. I cut my wrist, but because I want to wear short sleeves, now I let my head hit against the wall. I didn't go to junior high school from the first grade to the second. I studied by myself. When I went to junior high school, I sometimes went not to the classroom but to the sickroom. I like to be devoted to a person whom I love. When I selected a high school, my boyfriend asked me to go to the same school together with him, and we did. As soon as we entered high school, we broke up. I'm often caught by the police for loitering late at night, and the police usually send me home in a police patrol car. But the police warn me that I will be sent to a juvenile classification home next time. I was arrested for not wearing a helmet when my friend gave me a ride on a motorcycle. I have done enjo-kosai and worked at a sexual massage parlor. I'm very worried about going on to school. My school tries to make me go on to university, and my parents, too. I haven't been getting along very well with my parents these days. I think university is a place where people go who have no goals. I want to go to vocational school to study care work or nursing."

Additionally, nine girls (Case: 4, 5, 7, 9, 10, 13–15, and 17) were exposed to drugs from gang members, workers in the sex industry, or schoolmates. Due to their self-determination, some of these cases were able to avoid drug dependency.

All of the girls had confidants, who were mainly their friends despite social risks that increased their vulnerability. Regardless of their severe social circumstances, most of them had dreams for their future, hoping to be brides, and have happy families.

DISCUSSION

Our study has three major findings.

First, some teenagers had experienced maltreatment, such as child abuse, neglect, and family conflict, as found in other studies. ^{21,22} This may be caused by low socioeconomic status or unstable family conditions which are situations where they do not have the ability to change. ²³ They have not received appropriate affection from family, or friends. ²⁴ They ran away from home and lived downtown late at night to survive. ^{25,26}

Second, other teenagers felt distress and difficulty in their school life, as former studies pointed out.¹ Some of them could not keep up with their studies, lost their interest, and/or their status at school because of overly strict school regulations. Their schools and their teachers did not provide appropriate instruction and support. Once they left school, they lost opportunities to acquire skills to reject sexual demands from adults and to avoid sexual violence, unintended pregnancy, and sexually transmitted infections. Moreover, they were labeled as students with problematic behaviors by their teachers.²⁷

Finally, as Table 1 indicates, antisocial groups, such as gangster organizations or motorcycle gangs, seemed to affect these teenagers. Girls became involved in the sex industry and sexual exploitation through a network of gangs, such as dealers in illegal drugs, motorcycle gangs, and gangster organizations that they encounter downtown late at night. Although the government officially permits the sex industry, the illegal sex industry which hires the girls under 18 years of age is an extension of this permission. Despite the fact that Japan is one of the most developed countries, historically, the government has been lenient with the problem of sexual exploitation, as shown by the treatment of comfort women during World War II.²⁸ Sexual exploitation and

discrimination due to social injustice and gender inequality has existed in Japan throughout our long history.

Our findings indicate that social determinants of health, such as family condition and educational opportunities, were unstable and vulnerable. However, most of the girls still had aspirations for their future. Then, to foster their hopes and dreams, additional legislation is needed to reform the adolescent health and welfare system. For instance, the Juvenile Act of Japan states "juveniles' sound development" as the purpose of the law; 17,29 however, we have to examine "juveniles' sound development" if this has become a convenient catchphrase and slogan for adults. The United Nations Convention on the Rights of the Child 1989 (UNCRC) states that children have not only the right to development, but also the right to freedom of expression. Article 3 requires that for all States Parties, "the best interests of the child" shall be a primary consideration. 30,31 We cannot consider "juveniles' sound development" without comparing with the best interests of the child in the UNCRC, because girls are a group at social risk caused by relationships between them and their family, including socioeconomic circumstances and educational opportunities.32 Therefore, public health, welfare, education, and school health systems for the teenagers involved in the sex industry and sexual exploitation need to be designed to ensure the best interests of children, 17,33-35 so that all families can receive sufficient welfare support by public health centers and welfare facilities, and all children can be provided benefits up to higher education.

Significance and limitations

The significance of our study is we had the opportunity to learn, listen, and engage teenagers who experience sexual exploitation. We met as equals, independent of police, judicial authorities, and juvenile training presence and oversight. Unlike journalistic reports, our nonprofit research study not only obtained information on the social and environmental conditions we also provided mental support and companionship.

The main limitation of our study is we were unable to provide statistical evidence on the sexual exploitation of teenage girls due to a low number of cases, and a selection bias due to the nature of street recruitment. We had difficulty encountering teenagers who were sexually exploited and were unable to find additional subjects after July 2013.¹⁸ This could be due to the reinforcement of police involvement, the teenage population has become introverted,³⁶ or sexual exploitation has moved from the streets to online-dating sites as seen in other countries.²⁵ Further studies on social determinants of adolescent health should be conducted by statistical methods, compared with the teenagers without involvement in sexual exploitation, including male teenagers. Moreover, full consideration for adolescent health will be needed concerning welfare policy rather than strict regulations, also taking account of Sustainable Development Goals which is targeted at social innovation to address ending poverty, promoting well-being, and education for all.³⁷

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CONFLICT OF INTEREST

The authors declared that there is no conflict of interest. This study was unfunded.

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