

Engaging Construction Workers in Identifying Determinants and Deciding on Measures to Address Tobacco and Alcohol Consumption: An experience from Sri Lanka

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ABSTRACT

High consumption of tobacco and alcohol is a public health issue that impairs health and well-being significantly. Consumption is seen to be high in industries such as building construction. This study aimed at identifying determinants of tobacco and alcohol consumption among building construction workers and to decide measures to address them. The sample comprised mostly of tobacco and alcohol consumers ($n = 48$). A community-based health promotion approach was used. The process of identifying determinants took an average of 2½ months. A series of collective group discussions with the principal investigator (PI), self-administered questionnaires, and a determinant checklist were used to identify the determinants. Discussions with the PI and participants were recorded, transcribed and translated to English, and analyzed using content and thematic analysis. Demographic data obtained through the questionnaires were analyzed using descriptive statistics. The identified determinants were, peer pressure, hosting parties at night, availability of tobacco and alcohol products, forcing others in the group to consume, and availability of money. Construction workers were able to identify and prioritize determinants through collective open discussions – through relatively small inputs given by the PI. The workers suggested actions for the deciding on measures and implemented them to reduce or stop tobacco and alcohol consumption.

Keywords: Alcohol, Construction workers, Determinants, Health promotion, Tobacco

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INTRODUCTION

According to the prevalence in consumption of different substances within Sri Lanka, the consumption of alcohol and smoking is high. The statistics shows that 29.4% of male and 0.1% of female population within the age of 18–69 are smoking while 34.8% of male and 0.5% of female are consuming alcohol.^[1] Alcohol consumption is heavily practiced among males in Sri Lanka.^[2,3] Further, the construction industry is a largely growing industry where the male lay workers are highly vulnerable to consumption of tobacco and alcohol.^[4,5] Tobacco and alcohol are a serious threat to health and well-being of almost all the people in the world.^[6] Tobacco and alcohol consumption are an issue which should be concerned by the authoritative parties as it causes deaths, diseases such as cardiovascular diseases, cancers, neuropsychiatric illnesses,^[7] disabilities dependence, family problems, economic problems,^[6] other social problems, and mental and behavioral problems. Therefore, it is very important to take all possible actions to reduce and prevent consumption of tobacco and alcohol among all susceptible communities.

In the world, 7.5% of labor force is represented by the construction workers.^[8] Construction industries are considered as one of the vulnerable industries in both developed and developing countries.^[9] When compare with white collar workers, blue collar workers are bound to a higher prevalence of smoking^[2] and consuming alcohol. Factors related to workplace such as availability, nature of the work, individual characteristics, and work culture may influence alcohol drinking among workers as well.^[10] In Sri Lanka, these industries play a major role in improving the GDP of the country at the same time increasing the use of tobacco and alcohol consumption according to its context of the workplace^[11] and the socially created group behaviors of the workers who use substances as a group within the site. Therefore, workplace is

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also a risk factor that enhances alcohol consumption among the workers.^[11]

The determinants that affect on tobacco and alcohol consumption vary widely. Some determinants have been identified as individual and some as in societal level. These factors affect the construction workers' society in many different ways where the level of consumption and related problems varies. Thus, it is difficult to give a single factor that affects the use of alcohol and tobacco in such a society. Substance abuse is affected by different factors such as individual attitudes, beliefs, social norms, easy access, economic factors like affordability, and availability.^[12] Age, education, and marital status affect smoking among people.^[13] Similarly, individuals with low income and low education^[14] are disadvantageous groups with higher smoking prevalence.^[15,16] Therefore, this study investigates the ability of

tobacco and alcohol consuming construction workers to identify determinants of increasing and continuation of tobacco and alcohol usage among themselves and decide suitable actions to address determinants.

MATERIALS AND METHODS

Study Design

A community-based health promotion approach was carried out to identify determinants and measures to reduce or stop the increasing and continuation of tobacco and alcohol consumption with a group of building construction workers in Sri Lanka.

Study Period

The whole study was carried out approximately for 6 months. The determinants identification and deciding measures with the construction workers took an average of 2½ month from September to mid of December in 2018.

Study Setting and Participants

A building construction site in Anuradhapura district, Sri Lanka, was purposively selected to engage a group of current substance users in the study. The study participants were construction site workers including both skilled and unskilled labors.

Inclusion and Exclusion Criteria

Construction workers who have been employed by sub-contractors for more than 5 months were included into the study with their informed written consent. Temporary workers who are no longer working for more than 5 months and construction workers with language issues and speaking disabilities were excluded from the study.

Sample Size

The total sample comprised $n = 48$ construction workers.

Development of Data Collection Tools and Methods

Data collection tools were developed based on literature review and expert opinions. Self-administered questionnaire, group discussions, determinants checklist, and observations (field note book) were used as the data collection tools to identify determinants. Group discussions, video clips, posters, case scenarios, and success stories were used for deciding on measures.

Data Collection and Data Analysis

The principal investigator (PI) and two trained undergraduates who follow health promotion degree program collected data using the self-administered questionnaire and determinants checklist. The records of group discussions and observations were taken by the PI. The answers were tape-recorded, transcribed and translated into English, and then analyzed using thematic and content analysis. Sociodemographic data were analyzed using SPSS.

The Conceptual Framework Used in Community-Based Health Promotion Approach

The conceptual frame work model for community-based health promotion approach has been introduced in 2011^[17], as illustrated in Figure 1. In the previous studies, researchers (Guruge *et al.*, 2017, and Rathnayake *et al.*, 2020)^[18,19] have developed frameworks based on the same model introduced in 2011.^[17] In the current study, a modified framework from the above model [Figure 2] was adopted and used to identify the determinants that cause increasing and continuation of tobacco and alcohol consumption among building construction workers.

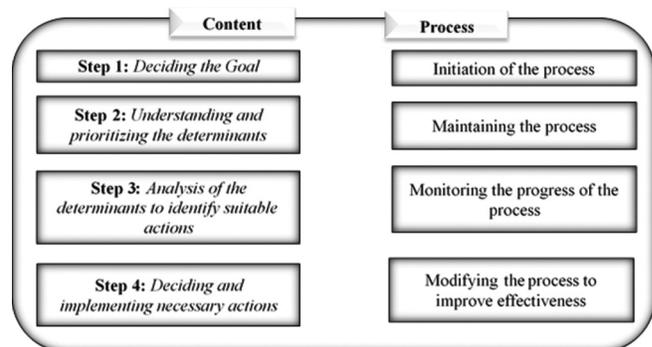


Figure 1: Conceptual framework for community-based health promotion approach^[17]

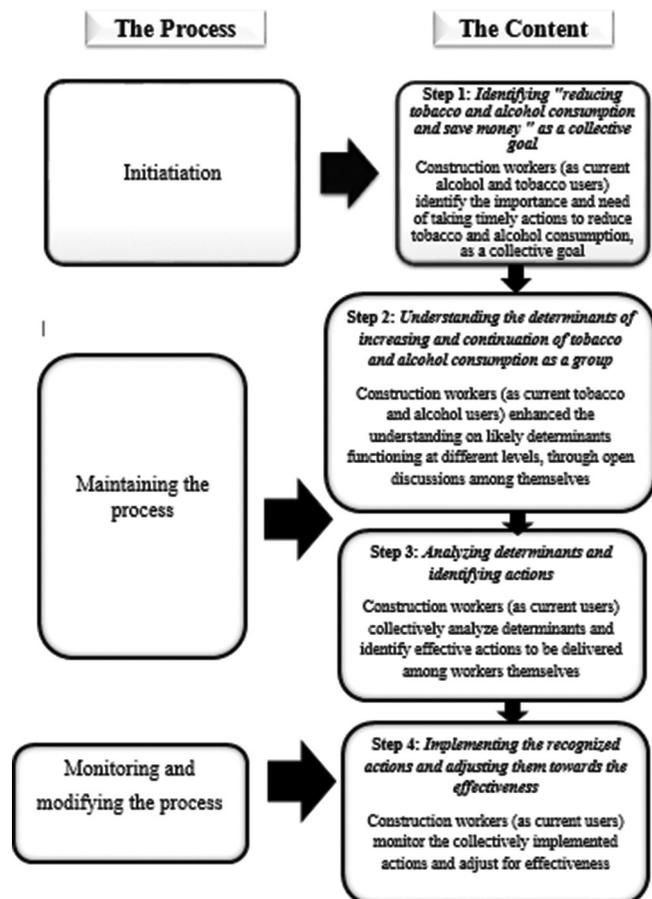


Figure 2: Conceptual framework for identifying likely determinants of tobacco and alcohol consumption

Application of the Modified Conceptual Framework

According to the modified conceptual framework [Figure 2], in Step 1, the construction workers identify "reduction of tobacco and alcohol consumption and save money" as a collective goal to be achieved by themselves as current consumers. Then, they realize the importance of reducing their level of tobacco and alcohol consumption. In Step 2, they identify likely determinants which can affect for "increasing and continuation of tobacco and alcohol consumption" among themselves. They will be facilitated by the PI to identify less visible determinants other than superficial determinants through a series of collective open discussions. The determinants are operating at different levels, (individual and community level), most influential and changeable determinants will be recognized at the Step 3. The final list of determinants will be prioritized by the participants with the facilitation of PI. Suitable actions to address the identified determinants will be carried out according to Step 3. In Step 4, implemented actions will be modified toward the effectiveness.

Initiation of the process with building construction workers

Before the baseline survey, a main discussion was conducted with 60 construction workers by the PI. The objectives and benefits of the study were clearly explained during the discussion and 48 construction workers were given their written consent to take part in the study. Then, the baseline survey was conducted with the study participants using a self-administered questionnaire which questioned about possible reasons for increasing and continuation of tobacco and alcohol consumption according to their individual perception [Table 1]. This was done without any facilitation by the PI.

Step 1, second discussion was taken after the baseline survey and there were 54 members including selected sample ($n = 48$) of workers. The management of the site informed the PI that it is difficult to allocate their working time for discussions since it could cause a great loss in profit. Therefore, the discussion was taken only for 15 min. However, the workers themselves wanted to continue the discussions and participate for the study as they wanted to reduce their substance consumption. Workers suggested to deliver the study through small groups and they named it as "pocket meeting groups" (PMGs). A PMG consisted with workers who are working under one sub-contractor. Workers suggested that a ½ h from lunch break and 15 min from the tea break can be used to deliver the intervention. Seven PMGs were formed by workers for the purpose of easy delivery and balancing their working hours with the intervention. Upper management agreed to arrange a collective meeting in each month with all the study participants until the completion of intervention.

Afterward, the community-based health promotion approach was initiated by the PI through two discussions where the same content was discussed after dividing the study participants into two groups. The PI received 2 h for the sessions. One session was averagedly taken for 40–45 min and 24 workers participated for the morning session (were included 3 PMGs) and another 30 workers were participated in the evening session (were included 4 PMGs). The sessions were focused on developing a "collective goal."

"The hope of living a long life" was discussed as the first dialogue to engage with them. They came up with answers such as, to earn money, to live healthy, to fulfill responsibilities as parents, to look

after their parents, to give a good education to their children, to be happy, and to live without causing any problem. Majority of participants were current consumers of some alcohol or tobacco product according to the Table 2. Thus, the PI gradually linked the theme with tobacco and alcohol consumption. Then, they were asked, how many years they expect to live to achieve life goals. Thereafter, it was further discussed about the current rate of life expectancy and what are the reasons that cause people to die these days. They came up with the responses such as, cancers, heart diseases, diabetics, suicides, and road traffic accidents. They identified cancers, heart diseases, and diabetics as non-communicable diseases (NCDs) with the facilitation of PI. They were able to understand the main reasons for high annual deaths as; NCDs, road traffic accidents, suicides, etc. They identified tobacco and alcohol consumption as a major risk factor for highest number of annual deaths. Thereafter it was discussed "how road traffic accidents", "work place injuries" and "other NCDs" occurred due to high consumption of tobacco and alcohol. The related harm, negative consequences, and importance of reducing tobacco and alcohol consumption were further discussed through a collective reflection. Then, they improved their understanding about the issue, high consumption of tobacco and alcohol, and they enhanced their enthusiasm to reduce the level of consumption. Next PI asked "how many cigarette sticks" are usually smoked by a smoker per day? They said, it is averagedly five sticks according to their usage. However, it was taken as three sticks per day and PI together with the workers, calculated the amount of money they spent only for smoking per year and it was 108,405,000 LKR by all smokers within the site. Each PMG presented their need in relation to the identified issue and "Reducing consumption and save money" was developed as a collective goal to be achieved. The workers from the second session were agreed with the same goal. Success stories, case scenarios, and video clips were used to facilitate sessions.

Table 1: Determinants identified through self-administered questionnaire without facilitation of the principal investigator

1. As a habit
2. To maintain friendships and join with friends
3. Forcing by others
4. Nature of the job
5. Availability of tobacco and alcohol products within the site
6. When see others are consuming tobacco or alcohol
7. To forget personal problems
8. Internal motivation
9. Peer pressure
10. To have fun and joy
11. Internal motivation

Table 2: Consumption of tobacco and alcohol

Activity	n	Yes (%)	No (%)
Ever smoked	47	81.3	16.7
Ever consumed alcohol	48	95.8	4.2
Consumption of tobacco products			
Cigarettes	45	79.2	14.6
Bidi	43	60.4	29.2
Smokeless tobacco	42	10.4	77.1
Consumption of alcohol products			
Arrack	46	77.1	18.8
Bear	48	93.8	6.3
Toddy	45	56.3	37.5

Identification of likely determinants of “increasing and continuation of tobacco and alcohol consumption” among construction workers through different methods

Identification determinants through self-administered questionnaire

This was completed during the baseline survey according to Table 1. Workers suggested determinants before any facilitation or clarification by the PI.

Identification determinants through group discussion

Step 2, third session was taken with 30 workers where at least 4 members were participated purposively from each PMG. It was taken averagely for 1 h. Discussion for the identification of determinants was initiated by dividing the 30 members randomly into five groups (in way mixing members from each PMG). They were asked to list out possible reasons for “increasing and continuation of tobacco and alcohol.” They were given 15 min. Then, another 5 min were given to prioritize recognized determinants based on feasibility of changing and are listed in Table 3. Determinants identified through self-administered questionnaire were discussed and prioritized within same session and are listed in Table 3.

Identification determinants through a checklist

A determinants checklist was distributed among randomly selected 37 workers from study participants and collected within 1 h. It was consisted with a set of likely determinants which cannot be easily identified by workers. A Likert scale was used within the checklist (extremely disagree, disagree, neither agree nor disagree, agree, and extremely agree) to assess their level of agreement with each determinant, based on their individual knowledge and perception. The checklist was prepared based on recently

identified and proved determinants that affect on tobacco and alcohol consumption. Checklists were collected and analyzed by PI and shared with workers at the final session on determinants identification. Four determinants were prioritized from the determinants checklist which are listed in Table 3.

Identification of determinants through observations and existing literature by PI

Regular observations and notes were taken by PI staying extra hours at the construction site at the end of each session. Further, existing literature was reviewed and risk factors were recognized for tobacco and alcohol consumption among populations. Based on observations and findings in literature, four determinants were identified by the PI and two were prioritized with workers at the last session for determinants identification and are listed in Table 3.

Finalizing identified determinants

A collective session was conducted with 30 workers who were selected purposively from study participants. Session focused to finalize the determinants list. Final list was comprised with prioritized determinants from self-administered questionnaire, group discussions, determinants checklist, and observations by PI. Final list was consisted with 18 determinants and then they were allowed to prioritize the final set of determinants with the facilitation and inputs given by PI. Seven determinants were prioritized for deciding on measures and are listed in Table 4.

Deciding suitable actions

Step 3 and 4, a series of discussions were delivered through PMGs to decide measures to address prioritized determinants and modified toward effectiveness which are listed in Table 5.

Table 3: Prioritized determinants through several methods with the facilitation of the principal investigator

Via self-administered questionnaire
1. Forcing by others
2. Availability of tobacco and alcohol products within the site
3. To maintain friendships and join with friends
Via group discussions
1. Organize frequent night parties at boarding places
2. Peers’ suggestions
3. When there is money, consume high amount of tobacco or alcohol products
4. Availability of substances within the site
5. Lack of self-control
6. To build up friendship
7. Receive tobacco and alcohol free of charge as an “incentive”
8. When we see others are using tobacco or alcohol products
9. Long stay at site
Through determinants checklist
1. Peer pressure from the members in users’ group
2. Consume tobacco and alcohol to fulfill some members’ necessity within the users’ group
3. Some are bringing tobacco and alcohol free of charge
4. To be a member of my peer group
By the PI through observations and based on literature
1. Lack of awareness about consumption of tobacco- and alcohol-related real harm
2. Attractive image on tobacco and alcohol consumption

Ethical Consideration

Ethical clearance was obtained from the Ethics Review Committee of the Faculty of Applied Sciences, Rajarata University of Sri Lanka. Both informed written and oral consent were obtained from all the study participants.

RESULTS

Study Participants

Sociodemographic data of the construction workers are given in Table 6. Majority of workers were in the age of 26–35. Most of the workers have received school education until ordinary level. There were 64.6% of workers who are married and majority of workers are having monthly income around 30,000–40,000 LRK.

Table 4: Final list of prioritized determinants

1. Peer pressure
2. Hosting frequent parties at boarding places
3. Force to consume high amount within the users’ group
4. Availability
5. When there is money, consume high amount of tobacco or alcohol products
6. Lack of awareness about tobacco- and alcohol-related real harm
7. Attractive image on tobacco and alcohol consumption

Table 5: Decided actions to address prioritized determinants

		1	2	3	4	5	6	7
1.	Peer pressure							
2.	Hosting frequent parties at boarding places							
3.	Force to consume high amount within the users' group							
4.	Availability							
5.	When there is money, consume high amount of tobacco or alcohol products							
6.	Lack of awareness about tobacco- and alcohol-related real harm							
7.	Attractive image on tobacco and alcohol consumption							
<i>Action</i>	<i>Description</i>							
Changing users' group behaviors and its' context	Was adopted to collectively discuss how their behaviors and group dynamics are changing when they consume alcohol. This was conducted under a series of discussions with different themes and finally aimed to change the users' group context and behaviors encouraged consumption The actions can be used to reduce their level and frequency of usage and to address the forceful drinking, peer pressure among users' group were openly discussed. How the tobacco and alcohol industries have boost up the image of products was discussed using video clips which reflect their marketing strategies as well. Further myths, negative social norms, and undue privileges for users were also discussed with them openly	*	*	*		*		*
Message wall	Pasted sticky notes written small "hints" to address negative social norms encourage smoking and drinking. Messages to improve knowledge on real harm. These messages were developed by workers itself with the given inputs by the PI	*		*			*	*
Mirror tool	Was adopted to motivate workers to reduce the tobacco consumption. It was a simple "tool," which can be hung on a wall. There is a mirror in the middle and a hand drawn picture of smoker and a non-smoker was pasted left and right side of the mirror. They may feel guilty when they saw the two different faces of a same person and realize what will be happened when smoked						*	*
Stop selling cigarettes at the site canteen	The action was made by the canteen owner of the site. Selling cigarettes were stopped due to the discussion conducted with him by the workers itself					*		
Analyzing video clips	Success stories which include how have users itself reduced their level of consumption and addressed faced challenges were discussed and analyzed using video clips. Those videos included success stories of an individual users, villagers, and victims of substance users	*			*		*	*
Expenditure book	To record and monitor the expenditures on tobacco and alcohol products by a workers per day. Was maintained individually		*			*		
Finance card	Recorded and monitored the monthly expenditures on tobacco and alcohol consumption as a group (PMGs). Then, they could get an idea about how their expenditures have reduced due to the taken actions as a group		*			*		

Table 6: Sociodemographic data of construction workers

<i>Demographic feature</i>	<i>Number (n=48)</i>	<i>%</i>
Age		
18-25	8	16.7
26-35	16	33.3
36-45	12	25
45<	12	25
Ethnicity		
Sinhala	45	93.8
Tamil	3	6.3
School education		
Grade 1-5	2	4.2
Grade 6-10	14	29.2
O/L	21	43.8
A/L	11	22.9
Marital status		
Unmarried	16	33.3
Married	31	64.6
Monthly income		
Rs. 20,000-30,000	5	10.4
Rs. 30,000-40,000	17	35.4
Rs. 40,000-50,000	10	20.8
Rs. 50,000-60,000	5	10.4
Rs. 60,000-70,000	3	6.3
>Rs. 70,000	7	14.6
Condition of the house		
Completely built	21	43.8
Half built	22	45.8
Less than half built	5	10.4

Only 43.8% has a completely built house though they are building construction workers themselves. Most of the workers, nearly 37.5% are staying in the site nearly a month and this has been identified by themselves as a contributing factor to increase and to be continuous in consumption. Since they do not go home after work and stay in boarding places, they have ample amount of time to spend on any activity after work. During these free time, they host frequent parties with the informally formed peer groups to consume alcohol. These parties to consume alcohol are hosted within the site or in boarding places.

According to Table 2, more than 80% of workers "have ever smoked or consumed alcohol." Most of them have consumed cigarettes and bear out of four other tobacco and alcohol products. There were 11 commonly stated determinants identified through self-administered questionnaire without any facilitation of the PI and are listed in Table 1. To make them realize and motivate to achieve desired goal as mentioned in the methodology, the average amount of money they spent, as a site, only on cigarettes was calculated. Then, they understood the real economic burden they are carrying unknowingly due to spending more on purchasing tobacco and alcohol products. They understood, how will be the real expenditure, when the "bill" of alcohol, *bidi*, and other products are added.

Determinants prioritized using four different methods are given in Table 3. There were three determinants prioritized

from the self-administered questionnaire. They were, forcing by others, availability of products, and to maintain and join with friends. Eight determinants were derived and prioritized at the group discussions conducted with sample of the workers as mentioned in the methodology. Determinants such as availability and to build friendship have been prioritized through both self-administered questionnaire and group discussions. Four determinants were prioritized through checklist and three were peer pressure, consume to fulfill some members' necessity within the users' group and to be a member of peer groups. All three determinants were bond with "peers." Receiving tobacco and alcohol products as an incentive or free of charge were identified at group discussions and through checklist. Lack of awareness about consumption of tobacco- and alcohol-related real harm and attractive image on tobacco and alcohol consumption were identified by the PI through observations and literature.

Seven prioritized determinants were derived from considering all four methods and they were, peer pressure, hosting frequent parties at boarding places, force to consume high amount within the users' group, availability, when there is money, consume high amount of tobacco or alcohol products, and lack of awareness about tobacco- and alcohol-related real harm. There were nine actions suggested and implemented to address the prioritized determinants of increasing and continuation of tobacco and alcohol consumption among construction workers.

DISCUSSION

The key finding of this study was that tobacco and alcohol using construction workers have the ability of identifying determinants that affect their own usage of tobacco and alcohol and deciding measures to address the consumption. According to the finding from the present study, majority of workers drink after finishing work or during their day off, sometimes during working hours as well. Construction workers were able to identify some determinants such as "peer pressure,"^[20,21] availability,^[12] and affordability^[12] which have already been discovered in existing literature. They could identify that workers' alcohol usage is influenced by social norms at workplace.^[22] "Round-buying" (if someone buys for you, next time you should buy one for them) is a strong social norm within site workers and drinking alcohol is accepted at construction sites as some embedded features in drinking culture according to the present study and literature.^[23] There are reasons within the workplace that caused to initiate alcohol consumption among workers according to the literature and workers itself. They are, existing work-based network of drinking^[11] and availability of alcohol products.^[12] Some studies have found that workers use alcohol and other drugs to escape or as a solution to financial strains.^[24] Being a male (sex), urban living and current smoking are correlated with heavy drinking.^[25] According to the present study, workers are using alcohol to symbolize their friendship as well. Some other factors influence on alcohol usage among construction workers are family and relationship problem, interpersonal conflicts, history of substance abuse, harassment, victimization, and financial problems.^[24] Further, they identified those as very superficial determinants and do not very much effect on their consumption. When they were facilitated to identify rooted determinants (which cannot be readily identified) with the given inputs by PI, they agreed over the determinants such as "attractive image on tobacco and alcohol" and "lack of knowledge

on real harm" which are already existing in literature.^[26]

As the findings of the present study are context specific, they cannot be generalized into a larger population. Therefore, this would be more discrete, accurate, and generalized with a sample size larger than this.^[25,27] The current study has shown promising results even with a small group since the health promotion principles were used in a scientific manner. Here, purposive sampling with the worker's consent was used. However, in some studies, they use new technology such as use of Facebook advertising to recruit the sample^[23] and use "multistage cluster sampling."^[25] Population category has been selected as they are vulnerable^[28] to many problems. Thus, it helps to reach one of the most vulnerable groups of people at once. The importance of selecting a construction site was easy access for a collection of tobacco and alcohol users at once.^[28] As an example if the study was conducted in a village, the users are scattered all over the village and difficult to gather them as groups. It was evident that construction workers have the ability to identify possible determinants according to their context and life experiences. They could easily identify determinants such as forcing others to drink, hosting parties with workers at site, peer pressure (friends), and to socialize with minimal facilitation by the PI. Further, they could identify existing determinants that are in literature as well.

The successful engagement of construction workers in the process of determinants identification was due to the community-based health promotion approach and strategies used. As a strategy to engage construction workers in the process of identifying determinants, the topic of tobacco and alcohol was not taken into discussion directly. First, main causes of deaths in Sri Lanka were taken into discussion to emerge the topic of interest by themselves; tobacco and alcohol. A series of collective open discussions were facilitated by PI and they were given the opportunity to look into their own usage. PI provided technical inputs from existing literature, interventions, and knowledge gained through the undergraduate degree program. Then, they accepted the need of identifying determinants of their own consumption of tobacco and alcohol to achieve the developed collective goal. They could understand that they were spending more than 1/3 of their monthly income on buying tobacco and alcohol. A series of discussions helped to make them realize the hidden determinants of tobacco and alcohol usage other than superficial determinants. The inputs given by the PI were logically discussed and accepted by them. Another factor that caused for the success of the study was using several methods to identify determinants such as self-administered questionnaire, group discussions, checklists, individual suggestions, and observations by the PI.

Limited time allocated for the group sessions, lack of having a big sample size, cultural barriers and social taboos, and lack of generalizability could be identified as major limitations of the study. Supportiveness and the interest of study participants, high consumption of tobacco and alcohol among workers were clearly visible and were the strengths. Since the construction site is a newly established site, they had less time to get involved together, thus the peer pressure to avoid them to get involved in the research was very low and easy access toward many users (vulnerable population) at a time in one place were advantages. Current tobacco and alcohol users are one of an effective means of finding determinants that influence their own use since people

who use it know more about the factors that affect their use than people who do not and including users among study participants is itself a strength.

CONCLUSION

The construction workers themselves were actively engaged in identifying determinants of "increasing and continuation of tobacco and alcohol consumption" through a series of collective open discussions. Majority of workers themselves as current users were capable of quickly identifying the determinants according to their own experiences in tobacco alcohol using such as "peer pressure, hosting parties at night and availability of products." The community-based health promotion approach was effective in engaging current users to identify the determinants of increasing and continuation of tobacco and alcohol consumption among themselves and to decide suitable measures to address the identified determinants. Further, they were able to identify the determinants drawn in the literature and it proved that the approach can be applied to empower grass roots level people in identifying root causes for certain health issues. Importantly, the approach can be used to improve construction worker's knowledge on the determinants of tobacco and alcohol consumption.

The current interventions are basically bounded to "non-users" and there is a lack in active involvement of "current users" in identifying determinants and deciding suitable actions to reduce their own usage. The findings of the study can be utilized to modify or introduce interventions with "users" other than "non-users" to reduce their own level of consumption by addressing its' determinants.

This approach can be introduced in safety programs within construction sites and can be advanced into implementing workplace policies to reduce level of substance consumption among construction workers. Further, targeted interventions can be developed after the identification of real determinants for tobacco and alcohol consumption with its' current users, other than practicing traditional "prevention or rescue programs on tobacco and alcohol consumption."

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