

## The Effect of A Life Skills Education Program on Mental Health and Social Competencies Among Young Prisoners In Cambodia: An Intervention Study

Puthy Pat<sup>\*1,2</sup>, Linda Richter Sundberg<sup>2</sup>, Bhoomikumar Jegannathan<sup>1</sup>, Miguel San Sebastian<sup>2</sup>

<sup>1</sup>Center for Child and Adolescent Mental Health (Caritas-CCAMH), Cambodia

<sup>2</sup>Department of Epidemiology and Global Health, Umeå University, Sweden

### \*Corresponding author

Puthy Pat, Center for Child and Adolescent Mental Health (Caritas-CCAMH), Cambodia and Department of Epidemiology and Global Health, Umeå University, Sweden

Submitted: 12 Jan 2023; Accepted: 19 Jan 2023 ; Published: 25 Jan 2023

**Citation:** Pat, P., Sundberg, L. R., Jegannathan, B., Sebastian, M. S. (2023). The Effect of A Life Skills Education Program on Mental Health and Social Competencies Among Young Prisoners In Cambodia: An Intervention Study. *Int J Psychiatry*, 8(1), 07-13.

### Abstract

**Introduction:** Numerous studies globally confirmed that young prisoners are more susceptible to mental health problems compared to adult prisoners and the general population. The lack of life skills has been reported as one of the main reasons for this vulnerability. This study aimed to assess the effectiveness of a life skills education program on mental health and life skills among young prisoners in Cambodia.

**Method:** This is an intervention study, applying a 'difference-in-difference' analysis. The life skills education program was implemented to promote essential skills for mental health and social competence among young prisoners. Mental health and life skills competence were evaluated using the Youth Self-Report and Life Skills Development – Adolescent Form scales, respectively. Four prisons were selected from a total of 24 prisons in Cambodia, a post-conflict country in Southeast Asia. A total of 412 young prisoners aged 15–24 years participated in the study and were randomly assigned to intervention and control groups.

**Results:** Both the intervention and control groups reported decreased mental health problems ( $DiD=3.78, p=0.34$ ) and improved life skills competencies ( $DiD=0.39, p=0.80$ ) after the intervention; however, the differences were not statistically significant.

**Conclusion:** The life skills intervention program had no significant effect on young prisoners' mental health and life skills competencies. Further studies should be conducted to evaluate the impact of the life skills education program in the prison setting, particularly in low- and middle-income countries (LMICs) such as Cambodia.

**Keywords:** Mental Health, Life Skills, Intervention, Young Prisoners, Cambodia

### Background

Prisoners are considered one of the most vulnerable populations to mental health problems [1]. Studies have reported that the prevalence of these problems is five to ten times higher among prisoners as compared to the general population in different international studies [2-4]. Forty to 90% of prisoners suffer from at least one mental health problem, while suicide expressions can be ten times higher among this group compared to the general population [5, 6]. Young prisoners, below 25 years of age, in particular may have five times more mental health problems than adult prisoners, the most common being anxiety, depression, and conduct problems [7, 8]. Another study on juvenile's perspectives on mental health service in Cuba reported that a sense of guilt, tension, and frustration were common among juvenile prisoners [9].

The increased risk of mental health problems in prisons is usual-

ly associated with pre-incarceration factors, but factors that arise while in prison may also play a role [10]. For instance, a lack of life skills has been noted as one of the main reasons for imprisonment; once inside, chances to develop these skills are limited, causing the individual to become even more vulnerable [10]. Life skills refer to one's abilities to adapt emotionally and behaviorally to different life situations so that he or she is able to successfully cope with daily challenges [10, 11]. When young people lack life skills competencies, they are more likely to become involved in risk-taking behaviors and/or criminal activities, such as sexual abuse, property damage, drug use, and gang activities, as a consequence, they become imprisoned [12-14]. At the beginning of their imprisonment, young prisoners usually struggle to adjust to the new environment, which might exacerbate tensions, fears, and anxieties [15, 16]. They are often exposed to bullying, abuse, violence, overcrowding, a lack of privacy, limited meaningful ac-

---

tivities, an absence of social networks, isolation, and a lack of future prospects, all of which are risk factors for developing mental health problems [10, 13, 17].

The World Health Organization (WHO) has developed and recommended a life skills education (LSE) program to promote mental health and social well-being among adolescents [18]. The LSE program builds on a series of skills such as basic personal management, social and anger management, interpersonal communication, and healthy decision-making [19]. This program was originally designed for adolescents in a school setting and facilitated by teachers or group leaders over a period of time (18). It follows a participatory group approach comprised of small group discussions, brainstorming, and role-playing, and the facilitators present a health issue to the adolescents, encouraging them to think about the problem in a holistic manner and allowing them to present different feasible solutions [19]. This program has been adapted and implemented in different countries and settings, mainly in schools, universities, communities, hospitals, workplaces, and orphanages [11, 20-26].

LSE programs have also been adapted and applied in the context of prisons, particularly among young prisoners (10). Improving life skills may assist prisoners in changing unhealthy thoughts and mood patterns (feeling depressed, anxious, etc.), as well as risk-taking behaviors such as fighting and drug use [27]. Appropriate training in life skills may also help young prisoners to enhance their ability to successfully deal with the challenges of being in prison [1, 10].

Even though there has been some evidence of a positive effect of LSE programs on the mental health of young prisoners, a lack of impact has also been reported. For example, an intervention study with young offenders in South Africa revealed that LSE had a short-term effect on anger management, problem solving, and the ability to cope with emotions and decision-making, and a long-term effect on emotional regulation (10). However, a study among US adolescent prisoners showed a non-significant positive impact on misconduct behavior after implementation of an LSE program [28].

Nevertheless, it is important to contextualize the intervention in regard to the specificities of the individual countries. To our knowledge, there are few studies that measure the impact of LSE programs in prisons from low- and middle-income countries (LMICs) (10) and none from Cambodia. This study aimed to assess the effectiveness of an LSE program on the mental health and life skills competencies among young prisoners in Cambodia.

## **Method**

### ***Study Setting***

Cambodia is located in Southeast Asia, a post-conflict country with more than 30 years of civil unrest and instability. The long-term war and conflict disrupted the health system and the provision

of mental health services in particular [29]. While the health system has been gradually restored, the prison health system remains underdeveloped [30-32].

### ***Study Design and Participants***

There are 24 prisons spread all over the country, one in each province, with a total of 5,552 young prisoners between 15 and 24 years of age [33]. A pre-post intervention (experimental) study was conducted in four prisons that were randomly selected from the 24 total prisons. The General Department of Prisons reported the prevalence of female prisoners to be less than 1%; therefore, they were excluded from the study to secure confidentiality. All young male prisoners from ages 15 to 24 in these four prisons who remained in the prisons for a minimum period of six months after the pre-test were invited for the study. At pre-assessment, 412 young male prisoners completed the questionnaires. One-third of the respondents (n=151) were randomly assigned to be in the intervention group and two-thirds (n=261) were assigned to the control group. Since 42 young prisoners were released during this period, 370 completed the questionnaire at post-assessment.

### ***Intervention Program***

To meet the requirement of the General Department of Prisons, Cambodia, all 412 participating young prisoners received a stress-reducing intervention session. The intervention included a 45-minute structured session to understand the stress of living away from families and being in prison, as well as how to relax themselves using simple breathing techniques. This session was implemented by two facilitators with more than five years of experience in conducting workshops on effective stress management.

One week after the breathing technique sessions, the LSE program was implemented to the intervention group over six consecutive weeks, each session lasting for approximately 90 minutes. The intervention group was divided into groups of 20 to 25 members to receive each session. The following six modules were applied in the same order to the young prisoners in the intervention group in all the four prisons: 'Coping with stress-facing challenges and problems,' 'Self-awareness – Relationship-dealing with anger,' 'Relationship-peer pressure,' 'Relationship-peer pressure – say 'No' to drugs and tobacco,' 'Self-awareness-self-esteem,' and 'Self-awareness-coping with stress-suicide.' The LSE sessions were facilitated by the first author and a member of the research team, who both have more than 10 years of experience in implementing LSE programs in Cambodia. The recommended WHO LSE program was previously used in the Cambodian school setting and these two members were also part of the intervention team in those schools [20]. Each session included five steps: introduction to the topic, activities (role-play, group work, or games), discussion, summary, and activities that were assigned for the prisoners to do between the six sessions. During the intervention sessions, less time was allocated for writing activities due to the low level of literacy among the prisoners, so more time was spent on demonstrations, fun activities, and role-play to encourage active participation.

---

## Measures

This study used two questionnaires to assess the effectiveness of an LSE program on mental health and life skills competencies among the young prisoners in Cambodia. They took approximately 45 minutes to administer. These questionnaires were translated into Khmer (official language of Cambodia) and had been used in previous studies in different countries, including Cambodia [20, 34].

The Youth Self-Report (YSR), a part of the Achenbach system of empirically based assessments, captures a range of mental health issues such as anxiety/depression, withdrawal depression, somatic complaints, thought problems, social problems, rule-breaking behavior, aggression, and attention deficit. The internalizing problems variable was constructed by merging items related to anxiety/depression, withdrawal depression, and somatic complaints, while the externalizing one was formed by coalescing rule-breaking and aggressive behavior as per the ASEBA manual [35]. It consists of 112 items that are rated using a Likert system (0=not true, 1=somewhat true, and 2=often true). The Cronbach's alpha of the YSR in our study showed high reliabilities in both the pre-assessment ( $\alpha_1 = .95$ ) and post-assessment ( $\alpha_2 = .96$ ); this, for instance, is slightly higher than the reliability of the YSR in a study on mental health screening in juvenile justice settings in Pennsylvania ( $\alpha = .84$ ) [36]. Since the cut-off score of the YSR has not yet been validated in Cambodia, the mean score was considered. Higher scores indicate higher mental health problems.

The Life Skills Development – Adolescent Form (LSD-AF) scale consists of 40 items that capture four dimensions: human relationship/interpersonal skills, decision-making/problems-solving skills, health maintenance/physical fitness skills, and the purpose in life [37]. Out of the total number, 30 items were phrased in a positive way and the other 10 expressed in negative statements. During the interview, the participants responded as completely agree (1), mostly agree (2), mostly disagree (3), and completely disagree (4). At the time of analysis, the 30 items with positive formulations were reversed to indicate higher scores, meaning higher life skills abilities. The LSD-AF used in this study had been previously translated into Khmer and adapted to the Cambodian cultural context [38]. The Cronbach's alpha of this instrument indicated good reliability at both pre-assessment ( $\alpha_1 = .84$ ) and post-assessment ( $\alpha_2 = .87$ ), which is comparable to the reliability of this scale in a study from Georgia ( $\alpha = .90$  to  $\alpha = .94$ ) [37].

## Data Collection

The YSR and LSD-AF are typically self-administered; however, we found that most of the prisoners had minimal education or were illiterate; therefore, their ability to understand and respond to the questionnaires was limited. Because of this, the research team interviewed the participants face to face. Both baseline and post-assessment (three months after the intervention) data were collected

in 2019 by two different teams that had at least two years of experience in mental health research data collection. The administrators received three days of training, which included role-play on the application of the questionnaires.

## Patient and Public Involvement

Prison is a restricted setting and young participating prisoners were not involved in the research design. The prison officials are legally accepted as the guardians, and as such deputy directors of each prison participated in a consultative meeting to design the project.

## Analysis

Descriptive statistical analyses were conducted to calculate the means of the total and specific YSR and LSD-AF scores for both the control and intervention groups during the pre- and post-assessment. To estimate the effect size across time, a comparison of the changes in mean scores of both the YSR and LSD-AF and its sub-domains were calculated by the difference-in-difference method (DiD) [39]. Statistical significance was determined at a 0.05 level. Since the mental health outcomes (YSR and LSD-AF scores) were continuous, linear regression models were applied. Analyses were adjusted by prison type to take into account the variability of the different settings. Analyses were done using the Stata program version 15.1.

## Ethics Approval and Consent to Participate

Ethical clearance was obtained from the National Ethics Committee for Health Research, Ministry of Health, Royal Government of Cambodia (reference no. N33NGCHR), and the permission to conduct the study in the prisons was approved by the individual prison authorities and the General Department of Prisons, Ministry of Interior. Additionally, oral and written consent were obtained from individual prisoners. The authorities gave consent, as they are the guardians, in the case of the prisoners who are under 18. Voluntarily participation and options to not participate in the study were emphasized. The respondents were assured of the confidentiality of the disclosed information.

## Results

### Mental Health Problems

Table 1 displays the total score in the YSR and all subtypes of mental health problems in the intervention and control group before and after the LSE program. In the post-assessment, three months after intervention, young prisoners in both groups reported fewer mental health problems. The total YSR means of the control and intervention groups were 61.91 and 64.80, respectively, in the pre-assessment stage, decreasing to 50.59 and 57.83, respectively, in the post-assessment; however, the pre-post difference was not statistically significant (DiD=3.78,  $p=0.34$ ). Smaller differences were found among the different dimensions of the YSR, with none of them statistically significant.

**Table 1: Means in the pre- and post-assessment stages and difference-in-difference (DiD) of YSR in the control and intervention groups after adjustment for prisons\***

	Type of group	Pre-assessment	Post-assessment	DiD	P-value
Total YSR	Control	61.91	50.59	3.78	0.34
	Intervention	64.80	57.83		
Anxiety/depression	Control	10.90	8.73	0.20	0.78
	Intervention	11.20	9.33		
Withdrawal depression	Control	5.84	4.65	0.12	0.79
	Intervention	6.29	5.27		
Somatic complaints	Control	6.91	6.57	-0.41	0.53
	Intervention	7.41	6.76		
Social problems	Control	7.76	5.87	0.49	0.42
	Intervention	8.12	6.83		
Thought problems	Control	6.10	5.13	0.85	0.13
	Intervention	6.21	6.20		
Attention problems	Control	7.63	6.11	0.13	0.80
	Intervention	7.96	6.62		
Rule-breaking behavior	Control	7.61	6.44	1.01	0.12
	Intervention	7.92	7.77		
Aggressive behaviors	Control	9.17	7.09	1.39	0.12
	Intervention	9.69	9.05		
Internalizing problems	Control	23.66	19.95	-0.10	0.95
	Intervention	24.90	21.36		
Externalizing problems	Control	16.78	13.53	2.40	0.09
	Intervention	17.62	16.83		

\* Lower values indicate fewer mental health problems

### Life skills competencies

The total LSD-AF means of the control and intervention groups were 112.89 and 112.14, respectively, in the pre-assessment stage, increasing to 113.48 and 113.15, respectively, in the post-assessment; however, there was no significant pre-post difference between the two groups (DiD=0.39, p=0.80) (Table 2). A similar

pattern, with an increase in life skills after the intervention, was found across all four sub-domains of the LSD-AF (human relationship skills, problem-solving skills, health maintenance skills, and skills in purpose in life), but no significant differences were found between the control and intervention groups in the pre-post assessment analyses.

**Table 2: Means in the pre- and post-assessment stages and difference-in-difference (DiD) of the LSD-AF in the control and intervention groups after adjustment for prisons \***

	Type of group	Pre-assessment	Post-assessment	DiD	P-value
Total LSD-AF	Control	112.89	113.48	0.39	0.80
	Intervention	112.14	113.15		
Human relationships	Control	19.89	20.12	-0.16	0.71
	Intervention	20.11	20.23		
Problem-solving skills	Control	17.84	17.81	0.54	0.17
	Intervention	17.50	18.02		
Health maintenance	Control	31.96	32.86	-0.54	0.33
	Intervention	31.86	32.22		
Purpose in life	Control	43.22	42.70	0.55	0.56
	Intervention	42.67	42.69		

\* Higher values indicate higher life skills competencies

---

## Discussion

The findings of this study suggest that the LSE intervention program was not effective in reducing mental health problems or improving life skills competencies among young prisoners in Cambodia. Although the control and intervention groups reported fewer mental health problems and a slight improvement in life skills competencies, the differences between the groups over time were not statistically significant.

### *Mental Health Problems*

Most of the published studies in this field are related to the prevalence of mental disorders rather than to assessing intervention effects. There is a limited number of studies that have evaluated the impacts of the LSE intervention on improving mental health, particularly from LMICs [40]. Our findings are comparable to a study by Hunte and Esmail among US adolescent prisoners, which also found that a life skills program had no significant effect in reducing misconduct behaviors [28]. Additionally, another study among US female prisoners did not find a significant association between a life skills intervention and self-esteem, anger management, and well-being [41].

In a different context such as the school setting, results have pointed in a different direction. A study among Iranian school students found that LSE programs had a significant effect on improving mental health and reducing stress, violence, addiction, and sensation-seeking [21]. Jegannathan et al. found no improvement in mental health problems, measured by the YSR scale, after an LSE intervention among school students in Cambodia, however, students with serious suicide expressions improved following the intervention [20]. These findings highlight the important role of cultures, contexts and settings that influence the outcomes of LSE programs to improve mental health, particularly among the marginalized population such as young prisoners. This also provides evidence that mental health interventions have to be customized to prison settings rather than just adapting them from other settings.

### *Life Skills Competencies*

The LSE program did not significantly improve life skills competencies in the intervention group either. Our result aligns with a study by Clark and Duwe who conducted an evaluation of a prison-based LSE programs in the US. Their main finding was that life skills programs had no effect in reducing the rates of recidivism, whereas our study did not look at that issue [27]. Additionally, Hunte and Esmail also reported a non-significant effect of LSE on the behaviors of young prisoners in the US [28]. However, a study among young prisoners in South Africa reported a significant increase in social support and in positive decision-making skills three months after the intervention, which, however, disappeared after six months [10]. The school study from Cambodia reported a significant increase in human relationship skills only for boys three months after the intervention [20]. Variations in the setting can explain some of these differences, since school students may have opportunities to put into practice the life skills received

compared to the restricted environment of prisons.

Interestingly the control group in our study also reported fewer mental health problems though not statistically significant. All participants, including in the control group, received a 45-minute session on understanding stress due to incarceration and separation from families and relaxation exercises. This may explain the impact on the control group that also benefitted from the intervention package, which was offered for the ethical reason of not denying basic help for the young people in the prison setting. The study by Kristofersson and Kaas on the role of stress management in the prison setting, which included breathing exercises, found a positive effect of relaxation practices on reducing psychological problems, which vindicates our finding in the control group [42]. The improvement in the control group could also be understood from the background of the phenomenon of ‘contamination’. Contamination may happen in prison settings since both the intervention and control group may stay in the same rooms, leading to discussion of the components of the LSE intervention [43]. Further research in these areas will help in designing an appropriate mental health intervention for young people in prisons.

### *Methodological Considerations*

It is important to note that conducting research in a prison setting and implementing specific interventions are challenging. This was a pioneering research project in the country, so a validated and adapted LSE version for the prison setting was not available. Our research team attempted to adapt the generic WHO-LSE and the LSE Cambodian school versions to the prison context; however, the adaptations may have hindered the impact of this program and more studies are needed to contextualize the LSE program to this setting. While the intervention did not have any effect on the two selected outcomes for this study, positive effects could have occurred on other life aspects not measured by this study.

The application of LSE to a freedom-restricted environment such as prisons might have also affected the outcome of the intervention. The effects were measured three months after the intervention when the participants were still incarcerated, which might have limited their abilities to practice their learned skills in real-life settings. Some of the LSE effects may be realized when the prisoners are released. Clark and Duwe found that a life skills program developed pro-social decision-making skills among offenders leading to positive lifestyle changes once they were released, reducing the rate of recidivism [27]. This revealed the possibility of young prisoners to put the learnt skills into practice after their release into a wider social environment rather than in the restricted prison setting. The instruments used in our study, the YSR and the LSD-AF, were originally designed for self-administration; due to a poor literacy level, however, face-to-face interviews were conducted, which could have led to some information bias.

Selection bias did not occur since all young male prisoners in the 15–24-year-old age group in each prison were included, and par-

ticipants within the same prisons were randomly assigned into control and intervention groups. The extent of a potential spillover effect of the intervention on the control groups, however, could not be assessed. The study population was limited to young male prisoners; therefore, the results cannot be generalized to female and older prisoners.

The research team took adequate measures to minimize the tendency of participants to provide expected responses, a social desirability bias common in questionnaire-based studies [44]. At the beginning of the interviews, a trustful environment was established by informing the participants that individual responses would not be shared with prison authorities. We emphasized the voluntary nature of participation and the lack of consequences for refusing to be involved in the research. The freedom to choose the responses as they wished and that there were no right or wrong answers were further stressed to participants.

### Conclusions and Recommendations

This study found that the life skills intervention program had no significant effect on young prisoners' mental health and life skills competencies. However, our findings did indicate that overall mental health problems were reduced, while life skills were improved. The breathing exercise given to all participants might have had a positive effect on the control group as well, which implies the need for further research on appropriate and contextualized interventions to promote mental health among young prisoners. Further studies on mental health and life skills interventions adapted to the prison setting in Cambodia with a focus on medium- and long-term effects may improve the prison mental health system. The perspectives of both prison officials and young prisoners should be taken into consideration on the adaptation of an LSE program to the prison setting, and their suggestions should be incorporated into future intervention programs.

### Reference

1. Tarolla, S. M., Wagner, E. F., Rabinowitz, J., & Tubman, J. G. (2002). Understanding and treating juvenile offenders: A review of current knowledge and future directions. *Aggression and violent behavior*, 7(2), 125-143.
2. Pat, P., Richter-Sundberg, L., Jegannathan, B., Edin, K., & San Sebastian, M. (2021). Mental health problems and suicidal expressions among young male prisoners in Cambodia: a cross-sectional study. *Global health action*, 14(1), 1985229.
3. Aida, S. A., Aili, H. H., Manveen, K. S., Salwina, W. I. W., Subash, K. P., Ng, C. G., & Muhsin, A. Z. M. (2014). Prevalence of psychiatric disorders among juvenile offenders in Malaysian prisons and association with socio-demographic and personal factors. *International journal of prisoner health*.
4. Fazel, S., Hayes, A. J., Bartellas, K., Clerici, M., & Trestman, R. (2016). Mental health of prisoners: prevalence, adverse outcomes, and interventions. *The Lancet Psychiatry*, 3(9), 871-881.
5. Constantino, P., Assis, S. G. D., & Pinto, L. W. (2016). The impact of prisons on the mental health of prisoners in the state

- of Rio de Janeiro, Brazil. *Ciencia & saude coletiva*, 21, 2089-2100.
6. Way, B. B., Kaufman, A. R., Knoll, J. L., & Chlebowski, S. M. (2013). Suicidal ideation among inmate-patients in state prison: Prevalence, reluctance to report, and treatment preferences. *Behavioral sciences & the law*, 31(2), 230-238.
7. Gonçalves, L. C., Dirkzwager, A. J., Rossegger, A., Gonçalves, R. A., Martins, C., & Endrass, J. (2017). Mental and physical healthcare utilization among Young prisoners: A longitudinal study. *International Journal of Forensic Mental Health*, 16(2), 139-148.
8. Hofvander, B., Anckarsäter, H., Wallinius, M., & Billstedt, E. (2017). Mental health among young adults in prison: the importance of childhood-onset conduct disorder. *BJPsych open*, 3(2), 78-84.
9. Ruiz-Íñiguez, R., Carralero-Montero, A., Martínez-González, A., Méndez-Parra, E., Valdés-Díaz, Y., & Sempere, J. (2021). Interfamily Therapy, a multifamily therapy model settled in infant-juvenile mental health services of Havana (Cuba): A qualitative study from participants' perspectives. *Journal of Marital and Family Therapy*, 47(4), 843-863.
10. Jordaan, J., Beukes, R., & Esterhuysen, K. (2018). The development and evaluation of a life skills programme for young adult offenders. *International journal of offender therapy and comparative criminology*, 62(10), 3077-3096.
11. Srikala, B., & Kishore, K. K. (2010). Empowering adolescents with life skills education in schools—School mental health program: Does it work?. *Indian Journal of psychiatry*, 52(4), 344.
12. Pérez, D. M., Gover, A. R., Tennyson, K. M., & Santos, S. D. (2010). Individual and institutional characteristics related to inmate victimization. *International Journal of Offender Therapy and Comparative Criminology*, 54(3), 378-394.
13. Abdu, Z., Kabeta, T., Dube L, Tessema, W., Abera, M. (2018). Prevalence and associated factors of depression among prisoners in Jimma Town Prison, South West Ethiopia. *Psychiatry journal*.
14. Al-Rousan, T., Rubenstein, L., Sieleni, B., Deol, H., & Wallace, R. B. (2017). Inside the nation's largest mental health institution: A prevalence study in a state prison system. *BMC public health*, 17(1), 1-9.
15. Gonçalves, L. C., Endrass, J., Rossegger, A., & Dirkzwager, A. J. (2016). A longitudinal study of mental health symptoms in young prisoners: exploring the influence of personal factors and the correctional climate. *BMC psychiatry*, 16(1), 1-11.
16. Houchins, D. E., Jimenez, E., Langley, N., Plescow, K., & Henrich, C. C. (2021). Predictors of self-determination and mental health symptoms among youth in juvenile justice facilities. *Behavioral Disorders*, 46(3), 138-148.
17. Konaszewski, K., Niesiołędzka, M., & Surzykiewicz, J. (2021). Resilience and mental health among juveniles: role of strategies for coping with stress. *Health and quality of life outcomes*, 19(1), 1-12.
18. World Health Organization. (1994). Life skills education for children and adolescents in schools. Pt. 3, Training workshops for the development and implementation of life skills programmes (No. WHO/MNH/PSF/93.7 B. Rev. 1). World Health Organization.

19. World Health Organization. (2020). Life skills education school handbook: prevention of noncommunicable diseases: approaches for schools.
20. Jegannathan, B., Dahlblom, K., & Kullgren, G. (2014). Outcome of a school-based intervention to promote life-skills among young people in Cambodia. *Asian journal of psychiatry*, 9, 78-84.
21. Jamali, S., Sabokdast, S., Nia, H. S., Goudarzian, A. H., Beik, S., & Allen, K. A. (2016). The effect of life skills training on mental health of Iranian middle school students: A preliminary study. *Iranian journal of psychiatry*, 11(4), 269.
22. Rezayat, F., & Nayeri, N. D. (2013). Self-efficacy after life skills training: a case-control study. *Nursing and midwifery studies*, 2(4), 83.
23. Azza, A., Setyowati, T., & Fauziah, F. (2015). Health Empowerment, and Economics of Women with HIV/AIDS Through Life Skills Education. *Jurnal Ners*, 10(1), 183-188.
24. Shabani, M., Moghimi, M., Zamiri, RE., Nazari, F., Mousavinasab, N., et al. (2014). Life skills training effectiveness on non-metastatic breast cancer mental health: a clinical trial. *Iranian Red Crescent Medical Journal*, 16(1).
25. Hantoro, S. (2012). Life Skill Based Education Increases The Quality of Human Resources. *Teknologi dan Kejuruan: Jurnal teknologi, Kejuruan dan Pengajarannya*, 28(1).
26. Mohammadzadeh, M., Awang, H., Ismail, S., & Kadir Shahr, H. (2017). Establishing content and face validity of a developed educational module: Life skill-based education for improving emotional health and coping mechanisms among adolescents in Malaysian Orphanages. *Journal of Community Health Research*, 6(4), 223-228.
27. Clark, V. A., & Duwe, G. (2015). An outcome evaluation of a prison-based life-skills program: the power of people. *International journal of offender therapy and comparative criminology*, 59(4), 384-405.
28. Hunte, R. S., & Esmail, A. (2011). Learning to Change: Does Life Skills Training Lead to Reduced Incident Reports among Inmates in a Medium/Minimum Correctional Facility?. *Race, Gender & Class*, 291-315.
29. Somasundaram, D. J., Van De Put, W. A., Eisenbruch, M., & De Jong, J. T. (1999). Starting mental health services in Cambodia. *Social Science & Medicine*, 48(8), 1029-1046.
30. Clarke, D., Duke, J., Wuliji, T., Smith, A., Phuong, K., & San, U. (2016). Strengthening health professions regulation in Cambodia: a rapid assessment. *Human resources for health*, 14(1), 1-9.
31. Goyet S, Touch S, Ir P, SamAn S, Fassier T, Frutos R, et al. Gaps between research and public health priorities in low income countries: evidence from a systematic literature review focused on Cambodia. *Implementation Science*. 2015;10(1):1.
32. Pung CK. RIGHTS AT A PRICE: Life inside Cambodia's prisons. LICADHO (Cambodian League for the Promotion and Defense of Human Rights); 2015.
33. General Department of Prisons, Ministry of Interior. In: Cambodia Doyp, editor. Phnom Penh 2016.
34. Rescorla, L., Achenbach, T. M., Ivanova, M. Y., Dumenci, L., Almqvist, F., Bilenberg, N., ... & Verhulst, F. (2007). Epidemiological comparisons of problems and positive qualities reported by adolescents in 24 countries. *Journal of consulting and clinical psychology*, 75(2), 351.
35. Achenbach, T. M. (2009). The Achenbach system of empirically based assessment (ASEBA): Development, findings, theory, and applications. University of Vermont, Research Center for Children, Youth, & Families.
36. Shulman, E. P., Bechtold, J., Kelly, E. L., & Cauffman, E. (2018). Mental health screening in juvenile justice settings: Evaluating the utility of the Massachusetts youth screening instrument, Version 2. *Criminal Justice Policy Review*, 29(8), 849-872.
37. Darden, C. A. (1996). Life-Skills Development Scale-Adolescent Form: The theoretical and therapeutic relevance of life-skills. *Journal of Mental Health Counseling*, 18, 142-163.
38. Jegannathan, B., Kullgren, G. (2011). Gender differences in suicidal expressions and their determinants among young people in Cambodia, a post-conflict country. *BMC psychiatry*, 11(1):1.
39. Gertler, P. J., Martinez, S., Premand, P., Rawlings, L. B., & Vermeersch, C. M. (2016). Impact evaluation in practice. World Bank Publications.
40. Lovett, A., Kwon, H. R., Kidia, K., Machando, D., Crooks, M., Fricchione, G., ... & Jack, H. E. (2019). Mental health of people detained within the justice system in Africa: systematic review and meta-analysis. *International journal of mental health systems*, 13(1), 1-41.
41. Schram, P. J., & Morash, M. (2002). Evaluation of a life skills program for women inmates in Michigan. *Journal of Offender Rehabilitation*, 34(4), 47-70.
42. Kristofersson, G. K., & Kaas, M. J. (2013). Stress management techniques in the prison setting. *Journal of forensic nursing*, 9(2), 111-119.
43. Lennox, C., Leonard, S., Senior, J., Hendricks, C., Rybczynska-Bunt, S., Quinn, C., ... & Shaw, J. (2022). Conducting Randomized Controlled Trials of Complex Interventions in Prisons: A Sisyphean Task?. *Frontiers in Psychiatry*, 13.
44. Latkin, C. A., Edwards, C., Davey-Rothwell, M. A., & Tobin, K. E. (2017). The relationship between social desirability bias and self-reports of health, substance use, and social network factors among urban substance users in Baltimore, Maryland. *Addictive behaviors*, 73, 133-136.

**Copyright:** ©2023: Puthy Pat, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.