

PAPER • OPEN ACCESS

Music video as intervention therapy in reducing depression among Malay female juvenile detainees in rehabilitation center

To cite this article: Junainor Hassan *et al* 2020 *J. Phys.: Conf. Ser.* **1529** 032010

View the [article online](#) for updates and enhancements.

You may also like

- [RETRACTED: Strategy of Diversified Music Education in Our Country Based on the Analysis of Big Data](#)
Yu Rui
- [Research on Emotional Music Reconstruction Method Based on DBN-GRU](#)
Xuemeng Wang, Bin Guo, Xin Ma *et al.*
- [Interior design of music schools in Jakarta](#)
F Firanty, F Latif and T Indahyani



The Electrochemical Society
Advancing solid state & electrochemical science & technology



249th
ECS Meeting
May 24-28, 2026
Seattle, WA, US
Washington State
Convention Center

Spotlight Your Science

**Submission deadline:
December 5, 2025**

SUBMIT YOUR ABSTRACT

Music video as intervention therapy in reducing depression among Malay female juvenile detainees in rehabilitation center

Junainor Hassan¹, Hassad Hassan², Ameer Fuhaili³, Norhudi'in Danu⁴

¹Senior lecturer, University Malaysia Perlis

^{2,3,4}Lecturer, University Malaysia Perlis

Abstract. The purpose of this study is to examine the use of music video as intervention tool in reducing depression among the Malay female juvenile detainees in rehabilitation center in one of the northern state of Malaysia. This is an experimental study which uses BDI II with a cronbach alpha of 0.86 in assessing the depression level with a dimension of physical, behaviour, education and life perception, self-perception and, family and society. The findings of this study concluded that music video (relaxation therapy) can be of an effective tool in reducing depression with a condition that the therapy itself must not exceed two times within four weeks in a row. Physical, behaviour and, education and life are the most significantly associated with the use of music video intervention (relaxation therapy).

1. Introduction

Explained and experimented by Day and Onorato (1997), Hall (1997) and Williams, (2003) art therapy was a non-destructive and therapeutic tool that enabled those who served their time in detention center to release their emotional distress which was associated with the deprivation of prison life as well as states of mental health extending beyond the incarceration experience. Art therapy through visual images and music (audio video) also an effective tool in helping especially female prisoners expressing feelings that was uncomfortable to let out or hard to put into words (Gussak, 2006 & 2007). Thus, art therapy had been found to reduce depressive symptoms and improved mood (Day et al., 1989; Cronin, 1994; Gussak and Ploumis-Devick, 2004; Merriam, 1998; Teasdale, 1995).

According to Fenner, Schofield & Van (2010 & 2011), art therapy was a tool that enabled a person who was experiencing mental disturbances to release his or her negative emotions with symbolic expression, emotional expression and thus experience life enhancement through cognitive development and social connectedness. Further illustrated by Brown, Gold, Hansen, Hjernevik, Qvale, Stige & Waage (2014), music therapy helped in reducing mental health problems among prisoners. Their studies of 113 prisoners with every 2 weeks in experimental group and no restrictions on frequency, duration or content of the music therapy used; showed of reduction of anxiety after two weeks of music therapy. Music therapy in this experimental study was seen as attractive tool in reducing mental health problems and was well accepted by the prisoners.

Subsequently, in Malaysia, among the few studies on juvenile offenders were by Nasir, Ahmad Zamani, Yusoff, and Kahirudin (2010), which involved 316 juveniles (164 males and 152 females). Their study had indicated that juvenile detainees experienced cognitive distortion such as self-critique, hopelessness, helplessness, and preoccupation with danger (Nasir et al., 2010). This was the tell-tale of



depression due to poor mental health management (McCarty, Stoep, Kuo & McCauley, 2006; Ng, Xiaoyi, Helen, Sarri, Stoffregen, & Shook, 2011).

As with the United States, there was an estimation of between two-thirds and three quarters of detained youths having one or more psychiatric disorders. More than 15% of detained youths had major mental disorders such as psychosis, affective disorders, and associated functional impairments (US Department of Justice, 2003, as cited in Sickmund, 2009). However, Nasir et al. (2010 & 2011) stated in their research that adolescents who were being detained in centres were more depressed than those from the community-based samples (Hunt, 2008). Girls had shown greater depression than the general adolescent population (Matsuura, Hashimoto, & Toichi, 2009; Ryan & Redding, 2004).

Adolescents who were being detained in detention centres and rehabilitation centres were mostly found experiencing comorbidity disorders, especially high in depression and extreme anxiety (Teplin, Abram, McClelland, Washburn, & Pikus, 2005). Alternatively, there was a research done by Matsumoto, Yamaguchi, Chiba, Asami, and Iseki (2004, 2005), in self-inflict injuries (patterns of self-cutting) by male and female Japanese juveniles in a detention centre.

1.1 Problem statement

There is the important need for investigating the use of music video as intervention tool in reducing the level of depression among female juvenile detainees in rehabilitation centres. This is due to the density of risk-taking behaviour among female juvenile offenders that was strongly correlated with major mental disorders (Sickmund, 2009; Teplin et al., 2005) such as depression, which undeniably needs attention, and treatment (Teplin et al., 2005).

1.2 Research questions

Firstly, do music video intervention (relaxation therapy) able to reduce level of depression and what type of depression experienced by the Malay female juvenile detainees in the rehabilitation centre. Secondly, at what week (between the four weeks of experimental sessions) does the level of depression reduced.

1.3 Objectives of the study

- i. To investigate the effectiveness of the music video (relaxation therapy) in reducing depression among the Malay female juvenile detainees in the rehabilitation centre.
- ii. To investigate the types and level of depression among the Malay female juvenile detainees in the rehabilitation centre.

1.4 Hypotheses of the study

H_{a1}: There are significant relationships between level of depression and all of the depression dimensions.

H_{a2}: There are significant effects on the level of depression and depression dimensions using Relaxation Therapy at the end of weeks 1, 2, 3, and 4.

H₀₃: There are no significant differences on the level of depression in using Relaxation Therapy at the end of weeks 1, 2, 3 and 4.

1.5 Significant of the study

Firstly, the most important contribution in this study is the music video intervention created (relaxation therapy) which enabled depression to be reduced among the Malay female juvenile detainees in the rehabilitation centre. Secondly, the outcome of this study is beneficial to counsellors, therapists, rehabilitation centre's staff (or any other correctional institutions), policymakers, programme developers in creating creative tools to help the female juvenile detainees in maintaining and building a positive and healthy mental health.

1.6 Limitation of the study

First, researchers need to abide a strict time frame in conducting the intervention of music video therapy and numbers of therapy. Second, there were also the risks of getting superficial and inaccurate (pretentious answers and actions) in answering the instruments and during the process of interventions. Third, in consenting the law and regulations of the rehabilitation centre, and to safeguard the safety of the Malay female juvenile detainees in the rehabilitation centre, information to acknowledge the real location of the study was prohibited.

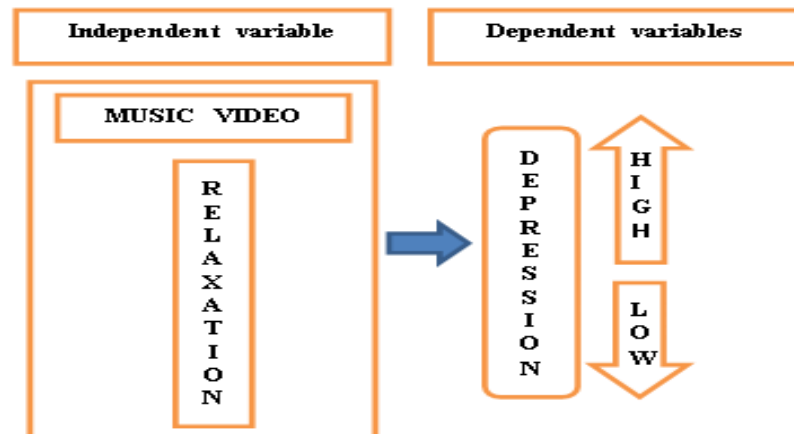


Figure 1. Conceptual framework of the study

2. Methodology

2.1 Location, population, respondent, sampling and validation issues

This study was conducted in one of the single sex (female) juvenile rehabilitation center in the northern state of Kedah, Malaysia. Population of the study only concerning of the high risk taking female juvenile offenders who were being detained in the rehabilitation center. There were n=40 Malay female juvenile detainees with a range of 14 to 17 years of age. This is a critical case study as it fits the criteria of being in a focus and specific group. First, the population in this research involved only the Malay female juveniles who were still being detained in the rehabilitation centre. Secondly, all of the respondents were involved in certain or specific phenomenon (criminal action and convicted by court). Third, the sampling of the respondent selected can be picked at only one place, which appropriately represents the 'population' being studied. As explained in a study conducted by Teddlie and Yu (2007), critical case sampling is the most appropriate method if a study has certain or specific criteria which involve certain unique phenomenon because it can represent the purest or most clean-cut instances of the studied phenomenon (Tashakkori & Teddlie, 2003).

2.2 Research approach

This is a quantitative study which implementing psychological instrument of depression inventory in collecting data on the level of depression among the Malay female juvenile detainees. This study also initiated four experiments on the use of music video (relaxation therapy) whereby data on the level of depression were collected on each introduced intervention.

2.3 Research design

There are two phases in this study. The first phase was the pilot test. The main objective of a pilot test was to assess the use of Beck Depression Inventory II in validating the Cronbach alpha. The second phase of the study was to conduct the music video interventions (relaxation therapy). There were four weeks of interventions (week 1, 2, 3, and 4). After each therapy, BDI II was applied in order

to assess the level of depression among the Malay female juvenile detainees in the rehabilitation centre.

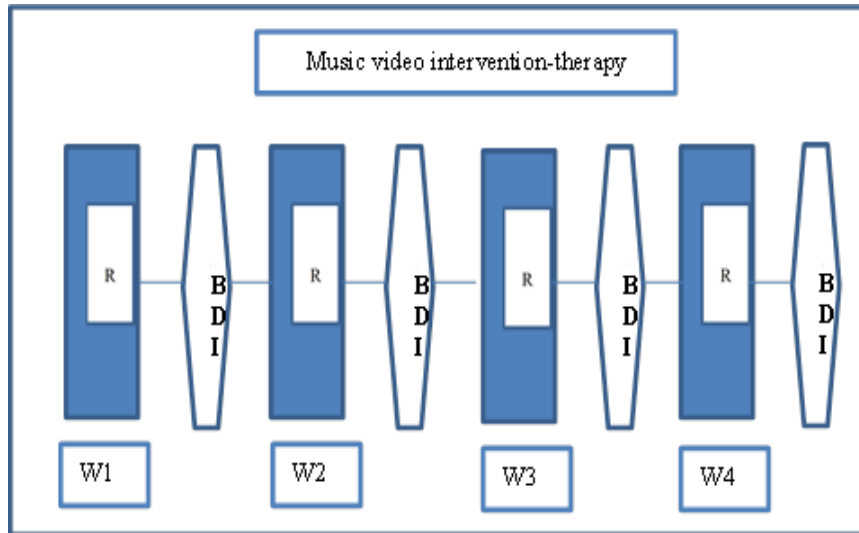


Figure 2. Experimental design

2.4 Instrument-Beck Depression Inventory II

This study uses the Beck Depression Inventory II. There are three major components in BDI which indicated depression. First, the negative cognition about the world; second, the future; and third, the self (Stapleton, Sanders, & Stark, 2007). BDI II also has the ability to assess the components of hopelessness and irritability, and negative cognitions (e.g., guilt and feelings of being punished, including depression on physical symptoms such as weight loss, and loss of interest in sex) (Staple et al., 2007). BDI II uses a self-rated Likert scale from value of 0 to 3. Scale 0 indicates low level of depression. Meanwhile, scale 3 shows chronic depression. The minimum score of BDI is 0 and the highest score is 63.

3. Findings

3.1 Depression

H_{a1}: There are significant relationships between level of depression and all of the depression dimensions.

Table 1. Depression score

	Minimum	Maximum	Mean	sd
Depression	21.00	48.00	31.0000	8.25457

Table 2. Relationships between level of depression and all of the depression dimensions

	Depression	Emotion	Physical	Behaviour	Edu & life perception	Self-perception	Family & society
Depression	1						
Emotion	.497**	1					

Physical	.730**	.124	1					
Behaviour	.766**	.350	.833**	1				
Education and life perception	.916**	.322	.526**	.507**	1			
Self-perception	.916**	.322	.526**	.507**	1.000	1		
Family and society	.867**	.261	.455*	.447*	.917**	.917**	1	

** $p < 0.01$

* $p < 0.05$

The correlation analysis was employed in analysing the correlation between level of depression and all of the depression dimensions. The results in Table 1 and Table 2 indicated strong relationships between the level of depression and all of the depression’s dimensions. Education and life perception, and self-perception showed the strongest association ($r = 0.916, p < 0.01$), followed by family and society ($r = 0.867, p < 0.01$), behaviour ($r = 0.766, p < 0.01$), physical ($r = 0.730, p < 0.01$), and emotion ($r = 0.497, p < 0.01$).

3.2 Music Video (Relaxation Therapy)

H_{a2}: There are significant effects on the level of depression and depression dimensions using Relaxation Therapy at the end of weeks 1, 2, 3, and 4.

Table 3. Effects of Relaxation Therapy on Depression Level and Depression Dimensions at the end of Weeks 1, 2, 3 and 4

Depression	β	T	Sig.
Emotional	.024	.141	.889
Physical	2.014	4.208	.000
Behaviour	-2.034	-4.641	.000
Education & life perception	2.060	3.228	.004
Self-perception	-1.997	-1.735	.096
Family & society	.080	.113	.911
R^2	0.512		
F	4.023		
Sig.	0.007		

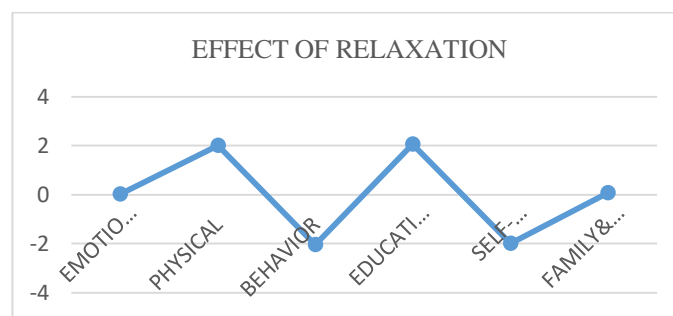


Figure 3. Effects of Relaxation Therapy on Depression Level and Depression Dimensions at the end of Weeks 1, 2, 3 and 4

Table 3 and figure 3 presents the result of regression analysis in examining the effects of Relaxation Therapy in reducing depression at the end of week 4. Three of the depression dimensions

were significantly associated with the therapy; physical ($\beta = 2.014, t = 4.208, p < 0.01$), behaviour ($\beta = -2.034, t = -4.641, p < 0.01$), and education and life ($\beta = 2.060, t = 3.228, p < 0.01$).

H_{03} : There are no significant differences on the level of depression in using Relaxation Therapy at the end of weeks 1, 2, 3 and 4.

Table 4. Level of Depression using Relaxation Therapy at the End of Weeks 1, 2, 3, and 4

Paired (Depression)	Differences	<i>t</i>	Sig.
Base – Week 1	1.01600	-21.874	.000
Week 1 – Week 2	16.42533	21.874	.000
Week 2 – Week 3	.82127	21.874	.000
Week 3 – Week 4	.78020	21.874	.000



Figure 4. Differences on the Level of Depression using Relaxation Therapy at the End of Weeks 1, 2, 3, 4

Table 4 and Figure 4 displays the results of paired sample *t* test in examining the differences on the level of depression at the end of weeks 1, 2, 3, and 4 using the Relaxation Therapy (R). The results denoted that there were significant differences on the level of depression from weeks 1, 2, 3 and 4 ($t = 21.874, p < 0.01$). The end of week 2 showed the highest differences (mean = 16.43), followed by week 1 (mean = 1.02). Weeks 3 and 4 showed the slightly small mean of differences compared to weeks 1 and 2.

Evidently, it has been found in this study that to significantly reduce the level of depression was not to apply art therapies exceeding more than twice (week 2). This was due to the stagnant level of depression or no show of reduction on the level of depression.

4. Conclusion and recommendation

The result of this study has proven that depression level of the Malay female juvenile detainees can be reduced using the video music intervention (relaxation therapy) created; especially in week one and week two. Being able to use appropriate tools and calming condition such as the sound of music with videos has made possible to breach negative emotions and thus, give ways in reducing the depression felt without feeling unsafe and eventually lower down the self-consciousness of the Malay female juvenile detainees (Albornoz, 2011). Music has been proven in this study as an effective medium in conveying messages (Chambers, 2008) and channelling negative emotions (Gold et al, 2004); without the need to use words (Edwards, 2011). It is highly recommended that video music intervention to be considered as a tool of practice in any counselling or therapy sessions not only in rehabilitation centres but also in schools and any other organizations or institutions in dealing with mental health issues.

References

- [1] Albornoz Yadira 2011 The effects of group improvisational music therapy on depression in adolescents and adults with substance abuse: a randomized controlled trial *Nordic Journal of Music Therapy* vol 20 3 pp 208-224
- [2] Cronin P 1994 Ways of working *Art therapy with women in Holloway Prison* in M. Liebmann ed *Art therapy with offenders* (Bristol, PA: Jessica Kingsley Publishers Ltd) pp 102-120
- [3] Day E S & Onorato G T 1997 Surviving one's sentence *Art therapy with incarcerated trauma survivors* in D Gussak and E Virshup eds in *Drawing time: art therapy in prisons and other correctional settings* (Chicago: Magnolia Street Publishers) pp 127-152
- [4] Fenner P, Schofield M & Van Lith T 2011 The lived experience of art making as a companion to the mental health recovery process *Disability and Rehabilitation* vol 33 8 pp 652-660
- [5] Fenner P, Schofield M & Van Lith T 2010 Art therapy in rehabilitation in *J.H. Stone, M. Blouin International Encyclopedia of Rehabilitation* (Buffalo, NY: Center for International Rehabilitation Research Information and Exchange CIRRIE)
- [6] Gold C, Assmus J, Hjernevik K, Qvale L., Brown FK, Hansen AL, Waage L & Stige B 2014 Music therapy for prisoners: pilot randomized controlled trial and implications for evaluating psychosocial interventions *Inter J Offender Ther Comp Criminol* (NCBI Pub Med) vol 58 12 pp 1520-39
- [7] Gussak D 2007 The effectiveness of art therapy in reducing depression in prison Populations *International Journal of Offender Therapy and Comparative Criminology* no 514 pp 444-460
- [8] Gussak D 2006 Effects of art therapy with prison inmates: a follow-up study *The Arts in Psychotherapy* vol 33 pp 188-198
- [9] Gussak D & Ploumis-Devick E 2004 Creating wellness in correctional populations through the arts: an interdisciplinary model *Visual Arts Research* vol 29 no 1 pp 35-43
- [10] Hall N 1997 Creativity & incarceration The purpose of art in a prison culture in D Gussak and E Virshup eds, in *Drawing time: art therapy in prisons and other correctional settings* (Chicago: Magnolia Street Publishers) pp 25-41
- [11] Hunt S C 2008 The prevalence of delinquency in depressed and substance abusing adolescent girls *Unpublished Doctor of Psychology Dissertation of Seattle University* (WA)
- [12] Matsumoto, Toshihiko, Yamaguchi, Akiko, Asami, Takeshi, Iseki, Eizo & Hirayasu, Yoshio 2005 Self-burning versus self-cutting: Patterns and implications of self-mutilation, A preliminary study of differences between self-cutting and self-burning in a Japanese juvenile detention center *Psychiatry and Clinical Neuroscience Journal* vol 59 no 1 pp 62-69
- [13] Matsuura N, Hashimoto T, & Toichi M 2009 Correlations among self-esteem, aggression, adverse childhood experiences and depression in inmates of a female juvenile correctional facility in Japan *Journal of Psychiatry and Clinical Neurosciences* vol 63 no 4 pp 478-485
- [14] Merriam B 1998 To find a voice: art therapy in a women's prison *Women & Therapy* vol 21 no 1 pp 57-171.
- [15] McCarty, Carolyn A, Stoep Ann, Vander Kuo, Elena S & McCauley, Elizabeth 2006 Depressive Symptoms Among Delinquent Youth: Testing Models of Association with Stress and Support *J Psychopathol Behav Assess* vol 28 no 2 pp 85-93
- [16] Nasir R, Zainah A Z, Khairudin R, Wan Shahrazad, W S & Latipun, S 2011 Psychosocial Factors Between Malaysian and Indonesian Juvenile Delinquents *World Applied Sciences Journal 12: Social and Psychological Sciences for Human Development* pp 52-57

- [17] Nasir, Rohany, Ahmad Zamani, Zainah, Yusoooff, Fatimah & Kahirudin, Rozainee 2010 Cognitive distortion and depression among juvenile delinquents in Malaysia *Procedia-social and behavioral sciences Journal* vol 5 pp 272-276
- [18] Ng Y H, Irene Shen, Xiaoyi Sim, Helen Sarri, Rosemary C, Stoffregen Elizabeth & Shook Jeffrey J 2011 Incarcerating in Adults Prisons as a Factor in Depression *Criminal Behaviour Mental Health* vol 21 no 1 pp 21-34
- [19] Ryan P E & R E Redding 2004 A review of mood disorders among juvenile offenders *Psychiatric Services* vol 55 no 12 pp 1397-1407
- [20] Sickmund Melissa 2009 Delinquency Cases in Juvenile Court, 2005, *Article OJJDP Fact Sheet-Office of Juvenile Justice and Delinquency Prevention* US Department of Justice
- [21] Stapleton L M, Sanders J B & Stark K D 2007 *Psychometric Properties of the Beck Depression Inventory*
- [22] Tashakkori A & Teddlie C 2003 *Handbook of mixed methods in social and behavioral Research* (Thousand Oaks, CA: Sage)
- [23] Teasdale C 1997 Art therapy as part of a group therapy programme for personality disordered offenders *Therapeutic Communities* vol 18 no 3 209-221
- [24] Teasdale C 1995 Creating change: Art therapy as part of a treatment service to counter criminality *Prison Service Journal* vol 99 pp 6-12
- [25] Teplin L A, Abram K M, McClelland G M, Washburn J J & Pikus A K 2005 Detecting mental disorder in juvenile detainees: Who receives services. *American Journal of Public Health* vol 95 pp 1773-1780
- [26] Williams R & Taylor J Y 2004 Narrative art and incarcerated abused women. *Art Education* Vol 57 no 2 46-52
- [27] Williams R M 2003 Introduction. In R. M. Williamse ed, *Teaching the arts behind bars* (Boston, MA: Northeastern University Press) pp 3-13