THE DEVELOPMENT OF CAMPUS COMMUNITY EMPOWERMENT MODEL IN DRUG ABUSE PREVENTION BEHAVIOR

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Abstract
The prevalence of drug abuse in Indonesia reached 2.2 %, or 3.8 million people. Predicted up to 2015 the prevalence increased to 5.1 million people. Drugs abuse complex problems have caused many casualties and material losses, so that Indonesia faces emergency drugs abuse. This condition needs to overcome the dangers of drugs in a comprehensive, integral and synergistic effort. All parties must cooperate in preventive drug abuse. Students are the group most vulnerable to drug abuse. The research subjects were students of 10 faculties who have followed the course for 2 years, lecturer, employee, teenagers and women in the community surrounding the campus (PKK). The purpose of research is to develop a model of campus community empowerment in drug abuse prevention behavior at Esa Unggul University. This study applies descriptive method with quantitative and qualitative approaches, conducted in May- July 2015. The independent variables are individual factors consisting of 100 knowledge, attitude and belief aspects and social-culture environment factors comprising family condition, peer group and campus environment factors. The dependent variable is drugs abuse prevention behavior. Number of sample was 224 respondents with purposive sampling method. The technique of data collection use a questionnaire that had been tested for validity and reliability and measurement using the test for knowledge and Likert scales for attitude and behavioral dimensions. The other data collection used a Focus Group Discussion (FGD) to get more detail information about the drugs abuse problem in the community, the potential resources they have and how they solve their problem, and what to identified kind of training they need to improve their contribution to the drugs abuse prevention program in the campus. The model created by analyzing multiple linier regression, analysis determination, F test and t tes., to know what variable most influence to the drugs abuse prevention. Based on the analysis it was found that individual variable hadn’t had relationship, but socio-cultural environment variables showed significant relationship with the variable behavior of drug abuse prevention. With this model, we can predict the behavior of drug abuse prevention score using individual variables and socio-cultural environment. This study concluded that : (1) those three independent variables (family condition, Peer group and campus environment factors) reveal the drugs abuse prevention behavior variable 30,7%. (2) the increase of family condition factors will gain the drug abuse prevention behavior 1,516 point score after controlled by the peer group and campus environment factors influence. (3) the greatest factor to the drugs abuse prevention behavior is the campus environment factor. Based on the result of FGD is was found that they able to to improve team capacity in preventing drug abuse, assessment drug abuse problems, made of prevention drugs abuse problems to solve their problems and implementation of monitoring and evaluating of their programme. But on other hand, they need to improve
regularly their knowledge of the kind of drugs, how to prevent and how the impact of drugs influence to the health. This study is expected for campus to review the regulatory of drug abuse prevention and its implementation consistently, involving parents and students, but also they need a training about the impact of drug abuse, assertive communication and parenting training for families to high up the role in creating a positive family conditions.

**Keywords:** campus community empowerment model, drugs abuse prevention behavior.

**Introduction**

National survey on drug abuse to group of students and college students in 26 provinces (National narcotics agency or BNN, Pranata UI research and training center, FISIP-UI, FKM-UI, 2003) shows that 3,9 % or 4 of 100 students/college students is drug users; 43,4 % uses more than one type of drugs; groups whose range of age 25-29 years old are the largest number of the other groups. The other research (BNN and Puslitkes-UI, 201) reveals that drug abuse is 3.2 people and 69% regular users, 31% addictive users; 79% is men and 21% is women. Economical and social cost in 2014 are estimated Rp 23,6 trillion. Mostly the drug abuse uses a syringe and 60% has HIV/AIDS virus (Acquired Immune Deficiency Syndrome). 15,000 people died uselessly each year or 40 people died each day (BNN, 2013).

Narcotic and psychotropic are useful substances for some certain diseases. If they are misused, it can cause addiction and bad effect for individuals or community especially young generations and finally it can weaken national resilience (narcotic law Act No.35/2009 on narcotics and No.5/1997 on psychotropic).

Drug abuse is complex problem and interaction of three causes. The causes are (1) drug itself (price,law, promotion through mass media), (2) individual (genetic, knowledge-attitude-belief, social interaction, skill of refusing an offering), (3) social and cultural environment, include :family, peers, campus, and law enforcement (OSAP, 1991 in Paulina, 2003). Based on those three interactions, the prevention of drug abuse behavior requires some principles and initiative of campus community consisting of student colleges, lectures, staff/employee, and community surrounding campus, and security staff as social and cultural environment factors as well individuals themselves.

**Research Methods :**

1. **Subject of the Research**

The subject of this research is 7800 people consisting of lecturers, staff/employee, and community surrounding campus (PKK community and 400 teenagers). Samples of the research are student colleges, lectures, staff/employee, and community surrounding campus (purposive sampling).

Data from academic and administrative department in 2015 shows that total of all college students is 7.800. To determine the sample taken is based on this formula as follow:

\[
 n = \frac{N}{N(d)^2 + 1} \tag{Burhan Bungin, 2011}
\]

n: Total of expected sample  
N: Total of population (7800 college students)  
d: Precision value (90% or alpha:0,1)

Based on the formula above, the total of sample is as follows:

\[
 n = \frac{7800}{7800(0,1)^2 + 1} 
\]

n = 79 (samples are taken from 100 college students)

So the total is 224 people.
2. Setting of Research
This research is conducted in 10 faculties at Esa Unggul university comprising group of staff, lecturers, and community surrounding campus in Mei-September 2015.

3. Design of Research
- First step is conducting literature review and making research framework and questionnaire to investigate the model of campus community empowerment in preventing drug abuse.
- Designing quantitative and qualitative as well descriptive analytic design to obtain model of campus community empowerment in preventing drug abuse.
- Research framework

<table>
<thead>
<tr>
<th>Individual factors (X1)</th>
<th>Social-culture environment factors (X2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Y) campus community empowerment in preventing drug abuse.</td>
<td></td>
</tr>
</tbody>
</table>

4. Data Collection Technique
Data collection is obtained from:
- a. Prime data is taken by researcher from a group of college students randomly using questionnaire.
- b. Literature review related to the causes of drug abuse and behavior in preventing drug abuse.
- c. List of questions referred to student affair department

5. Data Analysis
- a. Test validity and reliability
Before getting the data, the instrument is tested to 30 college students with the same criteria. Then the result will be tested using validity and reliability test to measure the accuracy and consistency of the instrument.
- Result of validity test
Validity refers to the extent the instrument measures what it is intended to measure. Validity test is conducted by comparing the value of rxy to r table product moment. It is valid if the value of rxy is more than r table moment with significant level 5%. To know the instrument validity uses Pearson product-moment correlation coefficient as follows:

\[
r = \frac{n(\Sigma XY) - (\Sigma X)(\Sigma Y)}{\sqrt{[n(\Sigma X^2) - (\Sigma X)^2][n(\Sigma Y^2) - (\Sigma Y)^2]}}
\]

X: score for the answer
Y: total of score
R: coefficient of Pearson product-moment
n: respondent number

Obtaining a valid test applies SPSS statistic program for Windows version 20.
Reliability refers to a reliable instrument in collecting data. Questionnaire is a better one. This study uses one-shot reliability. One-shot reliability means getting a reliable result by analyzing data from one testing then comparing it to the other questions or measuring the correlation among the answers of questions. To measure the instrument reliability employs Cronbach’s alpha with the formula as follow:

\[
r = \frac{n(\Sigma XY) - (\Sigma X)(\Sigma Y)}{\sqrt{[n(\Sigma X^2) - (\Sigma X)^2][n(\Sigma Y^2) - (\Sigma Y)^2]}}
\]

R 11: instrument reliability
k: question number

\[
\alpha_i^2 = \frac{\text{variance of score on each question}}{\text{total variance of overall scores}}
\]
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The similar to validity test, reliability test also uses SPS statistic program for Windows version 20. Therefore the result will be valid and reliable. Variable is reliable if the value of Cronbach’s alpha is more than 0.60 (Imam Ghozali, 2002:133).

b. Descriptive and quantitative analysis
   Descriptive analysis on each variable is used to explain the characteristics of respondents and to investigate the relationship and influence between variables based on the respondents’ answers.

c. Multiple regression
   After collecting and tabulating the data, this research requires having model test using classical assumption test as follows:

   a. Normality Test
      This test is used to determine whether the data distribution is normal or not. To test the normality needs simple variable testing by counting the value of skewness with formula as follows:
      \[ Z = \frac{Z_{skewness}}{\sqrt{6N}} \]

   b. Heteroscedasticity Test
      Heteroscedasticity test occurs if there is no similarity of standard deviation on dependent variable for each independent variable. The heteroscedasticity test in a regression uses Glejser test with the formula as follows:
      \[ Ut = \alpha + \beta X_1 + V_1 \]

   c. Multicollinearity Test
      Multicollinearity test is used to know whether the dependent variables influence each other or not. Multicollinearity occurs if each dependent variables have high correlation or more than 0.90. To detect multicollinearity through an inspection of correlation coefficients and Tolerance/VIF values. The limitation of VIF is 10 and tolerance value is 0.1. Multicollinearity test has the formula as follows:
      \[ r = \frac{n(\sum XY) - (\sum X \sum Y)}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}} \]

Analysis Technique and Hypothesis Test
a. Linear Multiple Regression Analysis
   This analysis aims to search the functional relationship or influences individual predisposition and social-cultural environment to drug abuse prevention behavior. The formula of this analysis is as follows:
   \[ Y = b_0 + b_1X_1 + b_2X_2 + e \]
   Keterangan:
   \( Y \) = Drug abuse prevention behavior
   \( b_0 \) = Konstanta
   \( b_1 \) = koefisien regresi untuk \( X_1 \)
   \( b_2 \) = koefisien regresi untuk \( X_2 \)
   \( X_1 \) = variabel predisposisi Individu
   \( X_2 \) = variabel lingkungan social- budaya
   \( e \) = faktor pengganggu diluar model

b. Multiple Correlation Analysis
   This analysis is used to know the relationship for each independent variable.
   \[ R_{y1,2,3} = \frac{b_1 \sum x_1 y + b_2 \sum x_2 y}{\sum y^2} \]

   c. F-Test
      This test is used to measure the degree of the relationship individual predisposition and social-cultural environment to drug abuse prevention behavior. The steps to measure are as follows:
      - Making hypothesis formula
      \( H_0 : b_1 = b_2 = 0 \) means that there is no significant influence between
independent variable (x) to dependent variable (y). b1\#b2=0 shows that there is significant influence between independent variable (x) to dependent variable (y).

- Determining level of significance using F table.
- Calculating F-test

$$R^2 / (k - 1) = \frac{1 - R^2}{N - k - 1}$$

- F-test

- Making decision
  Ho: accepted if value of F-statistical test < value of F table
  Ho: rejected if value of F-statistical test > value of F table

- T-test
  To examine regression coefficient of each independent variable partially uses T-test with some steps as follows:
  - Making hypothesis formula
    Ho:b=0 (regression coefficient is not significant) indicates that there is no significant influence between independent variable (x) to dependent variable (y).
    Ha:b=0 (regression coefficient is significant) shows that there is significant influence between independent variable (x) to dependent variable (y).
  - Determining level of significance using t table.
  - Calculating T-test

$$r = \frac{\sqrt{n - 2}}{\sqrt{1 - r^2}}$$

- Hypothesis
  Ho: accepted if value of T-statistical test < value of T table
  Ho: rejected if value of T-statistical test > value of T table

### Findings and Discussions

1. **Validity and Reliability Test**
   Questionnaire is valid and reliable with significant value 5% for regression coefficient more than \( r \) table (0.195) and Cronbach’s alpha more than 0.60 through validity and reliability test.

2. **Data Description of Research**
   Research is undertaken in ten faculties of Esa Unggul university with 145 college students of undergraduate program as the respondents who have studied for one year and only 143 college students return the questionnaire.

3. **Drug Abuse Prevention Behaviour**

<table>
<thead>
<tr>
<th>Drug Abuse Prevention Behaviour on College Students at Esa Unggul University is</th>
<th>Good 67% and Bad 33%</th>
</tr>
</thead>
</table>

Figure 2
Description of Drug Abuse Prevention Behaviour on Campus Community at Esa Unggul University in 2015

Based on the figure 2 above, campus community that have good behavior are 67% (147 campus community) and those that do not have good behavior are 33% (73 campus community) of 220 respondents.
4. Respondents’ Characteristics

Table 1
Distribution of Respondents’ characteristics whose age less or equal to 21 are 110

<table>
<thead>
<tr>
<th>Age</th>
<th>Freq</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 20 tahun</td>
<td>108</td>
<td>48.21</td>
</tr>
<tr>
<td>21-30 tahun</td>
<td>72</td>
<td>32.14</td>
</tr>
<tr>
<td>31-40</td>
<td>17</td>
<td>7.59</td>
</tr>
<tr>
<td>&gt; 40 tahun</td>
<td>27</td>
<td>12.05</td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>100</td>
</tr>
</tbody>
</table>

Sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Freq</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>82</td>
<td>36.61</td>
</tr>
<tr>
<td>Female</td>
<td>142</td>
<td>63.39</td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Respondents’ Occupation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Freq</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student college</td>
<td>143</td>
<td>63.86</td>
</tr>
<tr>
<td>Lecturer/Staff/employee</td>
<td>40</td>
<td>17.86</td>
</tr>
<tr>
<td>PKK community</td>
<td>26</td>
<td>11.61</td>
</tr>
<tr>
<td>Teenager</td>
<td>15</td>
<td>6.70</td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>100</td>
</tr>
</tbody>
</table>

(50.1%) and those the age range 22-25 are 57 (25.9%). The rest is 53 (24%) whose age more than 26. Percentage of men is more than women 120 (54.6%). Faculty of health science has the highest percentage (12.2%) then it is followed by faculty of computer 10.9%.

5. Individual Predisposition Factor

Analysis result shows that individual factor consists of personality, knowledge, attitude, and belief. Personality and knowledge are measured by questionnaire and reveal that 140 respondents (63.5%) obey on rules, 96 (43.8%) follow the rules, 119 (54%) follow on the instructions given and 26 (11.7%) do not easily disappointed, 87 (39.4%) are patient. The questionnaire focusing on handing problem demonstrates that 133 (60.2%) do not feel worried and depressive easily.

<table>
<thead>
<tr>
<th>Social Behaviour</th>
<th>Freq</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Obey on determined rules</td>
<td>140</td>
<td>63.5</td>
</tr>
<tr>
<td>b. Follow the rule</td>
<td>97</td>
<td>43.8</td>
</tr>
<tr>
<td>c. Follow the instruction</td>
<td>119</td>
<td>54.0</td>
</tr>
<tr>
<td>d. Accept the traditional/local values</td>
<td>79</td>
<td>35.8</td>
</tr>
<tr>
<td>e. Does not easily feel disappointed</td>
<td>87</td>
<td>11.7</td>
</tr>
<tr>
<td>f. Be patient</td>
<td>54</td>
<td>39.4</td>
</tr>
</tbody>
</table>

Response in handling problem

- Heroin
- Cannabis/marijuana
- Ecstasy
- Shabu
- Solvent or inhalant
- Alcohol
- Opiate/opium
- Morphine
- LSD (Lysergic Acid)
- Cocaine
- Amphetamine
- Sedative- hypnotic drug (Benzodiazepines/BDZ)

Impact on Drug Abuse

- Knows
- Does not know
- Total

The use of drug

- Knows
- Does not know
- Total

Identification of drug appearance

- Knows
- Does not know
- Total

Ways to prevent drugs

- Knows
- Does not know
- Total

Based on knowledge aspect, mostly respondents (97.8%) state that they do not know solvent/inhalant drug, LSD and amphetamine and more than 70% know the other drugs such as heroin, cannabis/marijuana, ecstasy, shabu and alcohol as well 30% of college students...
know opiates/opium, morphine, and cocaine. Besides, 218 respondents (99.3%) know the impact of drug abuse. 71 respondents (32.1%) know how to use drugs and 149 (67.9%) do not know to use them. 182 respondents (82.5%) do not know the appearance of drugs and 217 (98.5%) say that they know how to prevent them.

Table 3
Distribution of Behavior and Belief Factor

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Deviation Standard</th>
<th>Minimum and Maximum</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior</td>
<td>54.20</td>
<td>55.00</td>
<td>3.583</td>
<td>48-63</td>
<td>53.59-54.80</td>
</tr>
<tr>
<td>Belief</td>
<td>4.11</td>
<td>4.00</td>
<td>0.43</td>
<td>3-5</td>
<td>4.04-4.18</td>
</tr>
</tbody>
</table>

The analysis points out that the average of students’ behavior is 54.20 (95% CI: 53.59-54.80) with deviation standard is 3.583. The lowest score is 48 and the highest score is 63. The maximum score of this variable is 80. From the estimated interval can be concluded that 95% the average of students’ behavior ranges 53.59 – 54.80. The average of students’ belief is 4.11 (95% CI: 4.04-4.18) with standard deviation 0.432. The lowest score is 3 and the highest is 5. The maximum score of this variable is 5. From the estimated interval can be seen that 95% the average of students’ belief is 4.04 – 4.18.

6. Social-Cultural Factor

Table 4
Distribution of social-cultural factor

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Deviation Standard</th>
<th>Minimum and Maximum</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>2.37</td>
<td>2.00</td>
<td>0.542</td>
<td>1-3</td>
<td>2.28-2.46</td>
</tr>
<tr>
<td>Peers</td>
<td>2.05</td>
<td>2.00</td>
<td>0.843</td>
<td>1-3</td>
<td>1.91-2.19</td>
</tr>
<tr>
<td>Campus environment</td>
<td>2.62</td>
<td>3.00</td>
<td>1.335</td>
<td>0-6</td>
<td>2.39-2.85</td>
</tr>
</tbody>
</table>

The analysis indicates that the average of students’ family variable is 2.37 (95% CI: 2.82-2.46), with deviation standard 0.542. The lowest score is 1 and the highest is 3. The maximum score of this variable is 3. From the estimated interval can be concluded that 95% the average of students’ family variable is 2.28 – 2.46. The average of peer variable is 2.05 (95% CI: 1.91-2.19) with standard deviation 0.843. The lowest score is 1 and the highest is 3. The maximum score of this variable is 3. From the estimated interval can be seen that 95% the average of peer variable is 1.91-2.19. Moreover, the average of campus environment is 2.62 (95% CI: 2.39 – 2.85) with standard deviation 1.335. The lowest score is 0 and
the highest is 6. The maximum score of this variable is 6. From the estimated interval can be concluded that 95% the average of campus environment variable is 2.39 – 2.85.

7. Multivariate Selection

Table 5
Result of Multivariate Selection

<table>
<thead>
<tr>
<th>Variables</th>
<th>PValue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>0.225</td>
</tr>
<tr>
<td>Social and cultural environment</td>
<td>0.000</td>
</tr>
</tbody>
</table>

8. Multivariate Analysis

Equation of Linear Regression

<table>
<thead>
<tr>
<th>Prevention behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>= 54.717 – 0.014 individual + 1.509 social and cultural environment</td>
</tr>
</tbody>
</table>

This model can predict the score of drug abuse prevention behavior on college students at Esa Unggul University by using individual variable (personality, knowledge, attitude, belief) and social-cultural environment (family, peer, campus). Some definition for that equation is as follows:
- The increasing of drug abuse prevention behavior can decrease individual score 0.014
- Students who have the highest score on social environment have higher prevention behavior 1.509 after controlled by individual variable.

Conclusion

Individual predisposition does not have positive influences to drug abuse prevention behavior (personality, knowledge and attitude, belief influence negatively to drug abuse prevention behavior). The result of analysis indicates that campus social-cultural environment has positive impact to drug abuse prevention behavior. Analysis result shows that social-cultural environment factor and individual predisposition are significant to predict drug abuse prevention behavior variable.

Drug abuse prevention behavior that uses individual predisposition variable (personality, knowledge and attitude) and social-cultural environment (family, peer, campus) can be concluded that:

1. The increasing of drug abuse prevention behavior can decrease individual score 0.014
2. Students who have the highest score on social environment have higher prevention behavior 1.509 after controlled by individual variable.

Campus community empowerment can reinforce individual disposition by improving drug abuse prevention behavior and social-cultural environment through regulation review at campus and campus community involvement contribute actively in supervising and enhancing awareness by conducting some trainings continually.

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