



## Rehabilitation of Drug Users in Makassar City

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### Abstract

The spread and abuse of narcotics is a complex problem, which requires comprehensive mitigation efforts involving multidisciplinary, multisectoral cooperation and active community participation carried out continuously, consistently and consistently. Even though in medical science, most classes of narcotics are still useful for treatment, if they are misused or used not according to medical indications or treatment standards, especially if accompanied by illegal distribution, it will have very detrimental consequences for individuals and society at large. The cumulative number of AIDs cases in Indonesia in the second quarter of 2010 was 21,770 cases. The spread of HIV/AIDS among Injection Drug Use/IDUs has reached 8,795 cases. Methadone substitution therapy needs to be carried out with the aim of reducing adverse health, social and economic impacts, reducing the risk of contracting and transmitting HIV to other people, however therapy failure often occurs due to non-compliance or poor adherence. The research is observational with a cross sectional approach. Data were collected using questionnaires through interviews with informants following the therapy program. The results of the study showed good compliance in following therapy. Factors related to compliance in therapy are knowledge, attitudes, motivation, self-efficacy, family role, peer role, and health worker role. Multivariate analysis of multiple Logistic Regression, the most influential factors are motivation and the role of peers.

**Keywords** : Rehabilitation, Users, Drugs, Makassar City

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## 1. Introduction

The development and mode of operation or forms of crime are formed along with the dynamics of society and technological advances created by humans. Every opportunity or occasion is always exploited by individuals, groups and organized organizations, including countries, using various methods or methods with the aim of achieving their goals. As long as humans are still filled with various desires or lusts to satisfy themselves and groups that have the same ideology, whether for power, possession of wealth, destruction, killing other people or other groups, and so on. What is even more worrying is that in Indonesia the distribution and use of drugs is no longer at the level of those aged 25 years and over but those aged 25 years and under are increasing day by day because drug circulation is no longer in big cities but drug circulation is spreading to regional areas.

As time goes by, the level of public health has also shifted. People's lifestyles are also experiencing changes, including deviations in healthy behavior, so that drug abuse is increasing which affects the health status of individuals and communities, regardless of age, gender or cultural background, so that the consequences of drug abuse can cause HIV transmission/ AIDS (MOH RI, 2007). Indonesia, the fastest rate of HIV/AIDS epidemiology in Asia. Data from the Ministry of Health, Directorate General of PPM & OT, states that the cumulative number of positive HIV cases based on Voluntary Counseling and Testing services as of November 30 2009 was 34,257 cases. New HIV positive cases in the fourth quarter of 2009 were 5,997, in the second quarter of 2010 the cumulative number of AIDs cases in Indonesia was 21,770 cases.

One of the substitution therapy programs is the Rehabilitation Therapy Program, namely therapy for injecting drug users to overcome the problems they cause (Ministry of Health RI. 2007). Methadone (Dolophine, Amidone, Methadose, Physeptone, Hetadon, and many other similar names) is a type of synthetic opioid which is medically used as an analgesic (pain reliever), antitussive (cough suppressant) and as maintenance therapy in





patients with opioid dependence. The program's contribution is quite large in reducing the death rate.

Compliance is a problem that often arises in rehabilitation therapy programs (Department of Health, Directorate General of PPM & OT, 2010). Based on observations from 2003 to May 2005, patients aged over 20 years were the largest group who were able to survive well. Narcotics users who do not comply with taking medication and end up dropping out range from 40% to 50%, with the main reasons being not being able to tolerate the side effects of methadone, re-injecting/relapsed due to peer pressure and dying due to overdose or other diseases (Joewana, Satya, 2005). Based on research conducted by Ward, Mattick & Hall (1992) on several therapy programs in America, data shows that 7% to 64% of patients will leave the therapy program prematurely in the first six months. Meanwhile, temporary data from the program at RSKO Jakarta shows that 43% of patients as of August 2004 experienced a drop-out, of the 43% of drop-out patients, 75% dropped out before five months of undergoing the program (Joewana, Satya, 2005).

The main reason for therapy failure is poor compliance (Pramuka Saka Bayangkara, 1996). Theory of behavior (Shaluhiah, 2010), social learning or known as Social Learning Theory, proposed by Albert Bandura, there are several factors that influence the compliance of injecting drug users in therapy, including, age, education, knowledge, work, intentions, attitudes, motivation, perception, peer group pressure, or support from the user's external environment.

The overall characteristics of users who take part in the program are teenagers who are still high school students, with an average age of between 15 and 29 years. Nearly 90% of male users dominate the program. The user's motivation for compliance behavior in the therapy program is related to death due to overdose and intoxication, morbidity due to the effects of withdrawal, HIV infection due to users returning to injecting drugs and criminality and decreased social abilities. Low knowledge in understanding drugs and HIV/AIDS results in students using drugs, especially heroin, by sharing needles, so that the HIV/AIDS virus will be more easily transmitted among them.





Adolescents' attitudes that are less supportive or negative and even influence each other to use drugs with injection needles in interactions with peers also trigger an increasing population of users, they withdraw from society and tend to hide themselves, so therapy programs receive less appreciation or support from users.

The harm reduction program through therapy that is organized really requires the role of professional health workers. The limited number and quality of human resources is an obstacle in maximizing the role of health workers who handle it. The health services provided should be accessible to users and accessible to the community. User cases are quite high and are the 2nd biggest risk factor causing HIV/AIDS infection, the therapy program is a program that is still relatively new, so it requires special treatment and attention from all parties, and users are very difficult to reach so they require special treatment by counselors, outreach workers or health workers so that users can remain compliant with the therapy program.

This research will analyze the factors that influence injecting drug users' compliance with therapy, including user characteristics, work, knowledge, attitudes, motivation, self-efficacy, family role, peer role, and health worker role.

## 2. Research Methods

This type of research is observational research with a cross sectional approach. The total sample was 46 users who were still actively participating in therapy. The data collection instrument in the research is a questionnaire as a researcher interview tool which has been tested for validity and reliability. Data collection on independent variables for this research, namely data on respondents' characteristics (age, education, employment), knowledge, attitudes, motivation, self-efficacy, role of family, peers and role of health workers as well as the dependent variable, namely user compliance in participating in therapy through interviews with respondents, to prove the correctness of the data, the researcher carried out a cross-check by processing the data, through four stages, namely: editing, coding, entry, and cleaning data. The data that has been processed is then analyzed quantitatively, in this case the analysis used is univariate analysis to obtain an overview of the frequency of each variable, both the dependent variable and the





independent variable, bivariate analysis, namely to determine the relationship between the dependent variable and the independent variable, using the test Chi square correlation and multivariate analysis are used to determine the factors that most influence user compliance in following the therapy program using multiple logistic regression analysis.

### 3. Results and Discussion

The results of research that have been carried out are in accordance with the flow of the conceptual framework, namely regarding user characteristics: age, education, employment, knowledge, attitudes, user motivation in participating in therapy programs, self-efficacy, role of family, role of peers, and role of health workers who organize the program on the compliance of injecting drug users in participating in therapy programs.

#### a) Respondent Compliance

The results of the research showed that the highest percentage of respondents' compliance with therapy was 69.6%, and the non-compliance level was 30.4%. Based on observations at the methadone service, data was obtained that of the 46 respondents who attended therapy, 14 respondents had experienced an overdose, indicating that the respondent was still using injectable drugs during therapy. 1 respondent did not drink methadone in front of health workers due to a criminal case and was detained at the police station, so drinking methadone in front of family and police officers, 2 respondents had asked for a referral to get services elsewhere because they were traveling outside the area, 30 respondents had not taken methadone for unclear reasons, and 12 respondents had been declared dropped out by the hospital for 3 days consecutively not taking methadone.

The high level of respondent compliance cannot be separated from the role of non-governmental organizations that care about injecting drug users to always provide education about drugs and always hold activities aimed at young drug victims with the aim of providing encouragement and motivation so that they are always in good condition. clean from drug addiction. The activities carried out are providing courses to develop the talents of drug users so they can be empowered in society. Apart from that, drug users also have routine activities every month to always discuss with





families who are members of the Foundation, where in this activity parents who have family members who use drugs meet to discuss the problems faced by the family and solve them in the form of sharing with the family. other. It was also found that there was an agreement to appoint those who had been declared "clean" which means they had been free from the influence of drugs for 3 consecutive years to become peer counselors.

Results of bivariate analysis with the Chi Square test at a significance level ( $\alpha$ ) of 0.05. It is known that factors related to compliance in therapy include level of knowledge ( $p=0.018$ ), attitude ( $p=0.006$ ), external motivation ( $p=0.000$ ), external motivation ( $p=0.003$ ) self-efficacy ( $p=0.009$ ), role family ( $p=0.011$ ), the role of peers ( $p=0.001$ ), and the role of health workers ( $p=0.009$ ). Meanwhile, in the multiple logistic regression multivariate analysis, the results showed that the factors that had the most influence on the compliance of respondents who took part in the therapy program were internal motivation and external motivation as well as the role of the respondent's peers. The external motivation variable on compliance in the therapy program with  $p=0.024$ , ( $p<0.05$ ) OR (Exp B): 24.049, shows that respondents who have low external motivation have a tendency or will increase 24 times greater compliance which is categorized as no adhere to the therapy program, compared to respondents who have high external motivation. Internal motivation variable  $p=0.042$ , ( $p<0.05$ ) OR (Exp B): 14.149 indicating that respondents who have low internal motivation have a tendency or will increase 14 times greater compliance to those categorized as non-compliant in the therapy program, compared with respondents who have high internal motivation.

The role of respondents' peers in the therapy program  $p=0.030$  OR (Exp B) 34.133, this shows that respondents who received less support from peers in participating in the therapy program had a tendency or would increase 34 times greater compliance to those categorized as non-compliant in the program therapy compared to respondents who received support from peers. This is in accordance with Social Learning theory. Albert Bandura stated that human behavior is determined by a







three-way relationship between cognitive factors, environmental influences, and human behavior, including compliance behavior. Thus, staff (nurses and doctors) really need to explain the importance of compliance behavior in taking methadone medication. Positive support or reinforcement from family and peers is also very necessary in providing enthusiasm and encouragement to always comply with the program. Self-efficacy is a person's belief that he is able to carry out a certain behavior. Self-efficacy is an important factor in behavior that supports respondent compliance in participating in therapy.

b) Respondent Characteristics Respondent Age

The results of the analysis of the relationship between the respondent's age group and compliance in therapy show that the proportion of compliance levels in the therapy program of respondents who comply is higher in the young adult age group (78.9%) compared to the adolescent age group (63.0%), while the proportion of compliance levels in the therapy program non-adherent respondents were higher in the adolescent group (37.0%), compared to the young adult age group (21.1%). The results of analysis using the Chi-Square Test obtained a  $p$  value = 0.404. This illustrates that the young adult age group does not necessarily increase compliance in therapy programs and conversely the adolescent age group does not necessarily reduce non-compliance in therapy programs. This is in accordance with the theory of Social Learning Theory that behavioral determinants are not only influenced by age, but many influencing factors including: intelligence level, emotional level, gender, etc. as well as external factors, namely the environment, both physical and social, culture, economy, politics, and so on. These environmental factors are often the dominant factors that color a person's behavior. Likewise, Albert Bandura also said that human behavior is in the form of continuous reciprocal interactions between cognitive, behavioral and environmental factors that determine and are based on the individual's confidence to act.

Researchers are of the opinion that respondents who take part in the therapy program are usually drug users who are already in the dependency category, this is the





most difficult level for respondents to escape the grip of the influence of drugs, whether they are young or teenagers, because at this stage physical dependence takes the form of withdrawal symptoms (withdrawal). ) and psychological dependence will arise if someone stops using drugs, therefore that person will always look for drugs to overcome their physical and psychological dependence. Thus, respondents who are young adults or teenagers who do not comply with therapy are influenced by the bad effects of drugs entering the body.

c) Respondent's Education.

Based on the research results, it is known that the majority of the educational level of respondents who took part in therapy was secondary education, namely high school education at 67.4%, followed by higher education level at 19.6% and basic education, namely elementary school and junior high school at 13%. . The education level of many respondents is in high school because in general they started to become familiar with drugs or trial and error use during their junior high school education and then social/recreational use, situational use, abuse, dependence in high school and college. This is in line with what was reported by the therapy program that the education level of users who took part in therapy was mostly secondary school (46%) or college (29.2%).

d) Respondent's Occupation.

The results of the research showed that the majority of respondents who participated in therapy were self-employed, 87.0%, unemployed 10.9% and 2.2% working in NGOs. The results of this research are different from those carried out by Dwi Siswo Subagyo at the Tebet District Health Center, Jakarta in 2007-2008, showing that only more than 30% of the patients who participated were already working (had permanent jobs).

e) Respondents' Knowledge.

The research results found that most respondents had a low level of knowledge about compliance in therapy, namely 52.2% and those with high knowledge were 47.8%. The low level of knowledge of respondents about therapy programs is due to







the fact that the therapy programs being held are still relatively new and socialization about therapy programs has not been optimal, so that users do not get maximum information about therapy programs. Apart from that, the characteristics of users tend to be closed off, and users are very difficult to reach so they require special treatment by counselors, outreach workers or health workers. The results of this research are also in accordance with a survey conducted in 2008 regarding patient perceptions of therapy programs, 63.9% stated that they liked the program they were undergoing. However, the majority of patients (81.9%) thought that the officers were not optimal in carrying out their duties.

The results of the analysis using the Chi-Square Test obtained a value of  $p=0.040$  so it can be explained that there is a significant relationship between the level of knowledge and the respondent's compliance with therapy. This illustrates that the respondent's high level of knowledge increases compliance in the therapy program and conversely a low level of knowledge causes non-compliance in the therapy program. This research is in accordance with the results of this research in line with research by Bau Bintang (2004) that user knowledge is statistically significant ( $p<0.05$  and odds ratio 3.375) where knowledge will determine user non-compliance in participating in therapy.

f) Respondent's Attitude

The research results showed that the attitude of respondents who supported the therapy program was greater, namely 58.7%, compared to the attitude of respondents who were less supportive, namely 41.3%. However, it was still found that the attitude of respondents did not support compliance with this therapy program as seen in the statement item where the highest percentage was that respondents did not need to take part in therapy anymore, if the respondent felt their body was in better condition (76.1%), this was in accordance with what was stated by Soekidjo Notoatmojo (2003), who defines attitude as a feeling, belief, or value that influences the way a person behaves.





The results of the analysis using the Chi-Square Test obtained a value of  $p=0.016$  so it can be explained that there is a significant relationship between attitudes and the level of respondent compliance in therapy. This illustrates that a supportive attitude increases compliance in the therapy program and conversely an unsupportive attitude causes non-compliance in the therapy program. The results of this study are in line with Strain et al. 1999, that there are several factors that influence the compliance of injecting drug users in therapy, including age, education, knowledge, employment, intentions, attitudes, motivation, perceptions, peer group pressure, or support from the client's external environment. Respondent Motivation.

The research results showed that respondents with high external motivation for compliance with the therapy program were greater (65.2%) than those with low external motivation, namely 34.5%. And respondents' high internal motivation for compliance with the therapy program was greater (60.9%) than those with low internal motivation, namely 39.1%. Internal and external motivation can be seen from each respondent's answer item, namely the respondent's motivation for participating in therapy so that the respondent's life will be more prosperous (100%), a better life (100%), and the respondent will be able to avoid criminal acts (100%), because This therapy service is easier to reach (97.8%), cheaper in price (97.8%) and wants to prevent people from being addicted to drugs (97.8%). This is in accordance with what is stated in the Indonesian Ministry of Health guidelines (2006), which states that the user's motivation for compliance behavior in the therapy program is related to death due to overdose and intoxication, pain due to the effects of withdrawal, HIV infection because the user returns to using drugs. injection (relapse) and crime and social abilities decrease.

The results of the analysis using the Chi-Square Test showed that the value of external motivation ( $p=0.000$ ), internal motivation ( $p=0.003$ ). This illustrates that high motivation increases compliance in the therapy program and conversely low motivation causes non-compliance in the therapy program. The results of the multiple logistic regression multivariate test showed that the most influential factors were





external motivation and internal motivation. Respondents who have low external motivation have a tendency or will increase 24 times greater compliance which is categorized as non-compliant in the therapy program, compared to respondents who have high external motivation in the therapy program and respondents who have low internal motivation have a tendency or will increase 14 times greater compliance with those categorized as non-compliant in the therapy program, compared to respondents who had high internal motivation in the therapy program. This is in line with Gray's (2002) statement which states that motivation is a number of processes, which are internal or external to an individual, which cause enthusiasm and persistence in carrying out certain activities.

g) Respondents' Self Efficacy

The results of analysis using the Chi-Square Test obtained a p value = 0.009. This illustrates that high self-efficacy increases compliance in the therapy program and conversely low self-efficacy causes non-compliance in the therapy program. This is in line with Albert Bandura's theory which explains the expectations of the results of self-efficacy which are called outcome expectations, namely self-estimates or estimates that the behavior carried out by oneself will achieve certain results. People with high self-efficacy believe that they can do something to change events in their environment, while people with low self-efficacy consider themselves to be basically incapable of making responsible behavior. Role of Respondent's Family.

Families who lack support are 39.5%. The family's role is less supportive, namely where the family does not punish/scold if the respondent does not take methadone while attending therapy (15.2%). The family never provided advice to continue attending therapy regularly (10.9%), the family did not provide financial assistance while the respondent was attending the therapy program (10.9%). The low role of the family is because the family thinks that drug addiction treatment requires high costs and takes a long time with unsatisfactory results, the family also feels bored with the characteristics of the respondent's behavior which is not good, namely emotionally which can be seen as very sensitive and quickly bored, attitude





disobedient, emotional ups and downs and does not hesitate to hit people or speak harshly towards family members or people around him, often lies and breaks promises for various reasons, tends to be manipulative, lazy and often forgets responsibilities and duties, indifferent and distant attitude from family, often meets strangers, leaves without saying goodbye and comes home after midnight, likes to steal money at home, school or work, also pawns valuables at home, many of his valuables are lost, always runs out of money and time at home it is often spent in the bedroom. Things like that make the family ambivalent towards the respondent.

The results of the analysis using the Chi-Square Test obtained a value of  $p=0.027$  so it can be explained that there is a significant relationship between the role of the family and the level of respondent compliance in therapy. This illustrates that a supportive family role increases compliance in the therapy program and conversely a less supportive family role causes non-compliance in the therapy program. The results of this research are also supported and in line with the results of research conducted by Wenny Hatu Army Puspita, the research results show that the factors that influence IDU's to use methadone therapy are support from the family and easy access to methadone.

#### h) Role Friend Peers Respondent

Results analysis with test *Chi-Square The test* obtained a value of  $p=0.001$ . *Multivariate analysis of multiple Logistic Regression* resulted in:  $p=0.030$  OR (Exp B) 34,133. This illustrates that role Friend peer which supports increase obedience in the program therapy And opposite role Friend peer Which not enough support causes non-adherence in the therapy program . Role Friend same age not enough support in program therapy has trend or would increase 34 times greater non-compliance in program therapy compared to with role friends of the same age Which support in Program Therapy.

Results study This in line with Strain statement et al. 1999, that There is a number of factors that influence obedience user injectable drugs in therapy between others, age, education, knowledge, occupation, intentions, attitudes, motivation,





perception, pressure group of friends peer, or support from client's external environment. Joewana, (2005) also said that in frame let go of attachment to parents, teenagers need Friend for socialize. In order to accepted in something group Which will enter, teenager must follow group habits the. When in group it exists use drugs Which is a habit, so teenager Which other Also will join in using drugs For make interaction easier social, by Because That role Peers have a very strong influence in modeling the adoption of abusive behavior drugs on user injectable drugs.

#### i) Role Officer Health Respondent

Results analysis with test Chi-Square Test obtained mark  $p=0.009$  so that can explained that there is connection Which significant between the role of health workers and the level of respondent compliance in therapy. This illustrates that the supportive role of health workers increases compliance in therapy programs and conversely the less supportive role of health workers causes non-compliance in therapy programs. According to Lewin's (2003) theory, positive attitudes and behavior of health workers are a driving factor in determining user behavior in maintaining compliance with the health belief therapy program. The patient's belief in the importance of health is also influenced by the patient's belief in services.

## 4. Conclusion

Obedience respondents Which categorized as compliant in therapy large enough (69.4%). Factor which relate with obedience is level knowledge, attitudes, *external* motivation, *internal* motivation, *self- efficacy*, family role, peer role, and role officer health. Respondents with motivation *external* low have a tendency or will increase 24 times greater than categorized compliance no obedient in program therapy, compared to respondents that has motivation *external* tall. Respondents with motivation *internal* low have a tendency or will increase 24 times greater than categorized compliance no obedient in program therapy, compared to respondents who have high *internal* motivation, and respondents Which not enough get support from Friend peer have tendency or will increase 34 times greater against obedience Which categorized as not obey in program therapy. compared to respondents who received support from peers.





## 5. Compliance with ethical standards

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### Disclosure of conflict of interest

This research collaboration is a positive thing for all researchers so that conflicts, problems and others are absolutely no problem for all writers.

### Statement of informed consent

Every action we take as authors is a mutual agreement or consent.

## References

- Afiat, M., Pariati, P., & Alimuddin, H. (2022). The Effect of Giving Formula Milk on Caries in Preschool Children. Barongko: Journal of Health Sciences, 1(1), 35–40. <https://doi.org/10.59585/bajik.v1i1.37>
- Ashwar. 2003. Medical and Public Health Research Methodology. Binarupa Literacy. Batam Center
- RI POM Hall. 2006. Patient Compliance is an Important Factor in the Success of Therapy. Jakarta.
- Betan, A., & Pannyiwi, R. (2020). Analysis of the incidence rate of sexually transmitted infections. Sandi Husada Health Scientific Journal, 9(2), 824-830. <https://doi.org/10.35816/jiskh.v12i2.416>
- Department of Health Directorate General of PPM & PL. 2010. Quarterly Report on the Situation of Hiv&Aids Development in Indonesia. the year 2010. <https://www.penyakitmenular.info/defmenu.asp?menuID=14&menuType=1&SubID=3&DetId=505>.
- Department of Health Directorate General of PPM & PL. 2006. Implementation Guidelines for Reducing the Harm of Narcotics, Psychotropics and Addictive Substances (Drugs), Jakarta.
- Republic of Indonesia Ministry of Health. 2007. Therapy Program Modules and Curriculum. Indonesian Ministry of Health; Jakarta.
- Directorate General of PPM & PL, Ministry of Health of the Republic of Indonesia. 2010. Statistics on HIV/AIDS Cases in Indonesia, Reported up to September 2010 Source:, <http://spiritia.or.id/Stats/StatCurr.pdf>. accessed 28 December 2010. <http://library.pom.go.id/KoleksiLainnya/Buletin%20Info%20POM/0506.pdf>
- Joewana, Satya. 2005. Mental and Behavioral Disorders due to the Use of Psychoactive Substances, Drug Abuse- 2nd Edition. EGC Medical Book Publishers, Jakarta.
- Minister of Health Decree. 2006. Decree of the Minister of Health of the Republic of Indonesia number: 494/menkes/SK/VII/2006 concerning the Determination of







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- Hospitals and Satellites for Testing Therapy Services and Guidelines for Maintenance Therapy Programs, Methadone. 2006. <http://www.depkes.go.id/downloads/Kepmenkes/Obat/KMK%20RS%20UJICOBAB%20rumatan%20methadone.doc>.
- Moleong, Lexy J., DR. MA 1991. Qualitative Research Methodology. PT. Rosdakarya Youth, Bandung.
- Notoatmodjo, Sukidjo. 2003. Health Education and Behavior. Rineka Cipta: Jakarta.
- Notoatmodjo. 1993. Introduction to Health Education and Health Behavior Science. Andi Offset: Yogyakarta.
- Regional Regulation. 2009. Regional Regulation number 2 of 2009 concerning Prevention and Management of HIV and AIDS in West Kalimantan Province. Pontianak.
- Purnomo, J Gunawan, Magdalena, et al. 2005. Atlas of Medical Helminthology. Jakarta: Gramedia Pustaka Utama.
- Rifiani, N., & Sulihandari, H. (2013). Basic Principles. Nursing (1st ed.). Jakarta: Smart World.
- Rosdiana, R., Djunaedi, D., & Aditia, D. (2023). Parents' Knowledge of Elementary School Children Regarding Persistent Health Cases. Barongko: Journal of Health Sciences, 1(3), 122–128. <https://doi.org/10.59585/bajik.v1i3.109>
- Rahmat Pannyiwi, Andi Agustang, Tahir Kasnawi, Andi Tenri Pada, Ahmad Yani. 2020. Social Network for Drug Circulation in Sidenreng Rappang Regency, Indonesia. Journal of Systematic Reviews in Pharmacy, Volume 11 Issue 9, Pages 575-577. Publisher <http://www.sysrevpharm.org/?mno=14507>
- Susanti, R., Imran, A., Briliannita, A., Akbar, A., Yermi, Y., B, M., Pannyiwi, R., & Rasyid, D. (2023). Counseling on clean and healthy living behavior in Minasatene District, Pangkajene Islands Regency. Social Friends: Journal of Community Service, 1(3), 92–98. <https://doi.org/10.59585/sosisabdimas.v1i3.70>
- Ulasaswini, AA, Haris, M., Hidayat, T., Yusriyanto, Y., Syafri, M., Mustari, S., & Hermawan, A. (2023). Effectiveness of Clean Water Filtering on the Water Quality of Dug Wells in Patingalloang Village, Ujung Tanah District, PT Pertamina Patra Niaga IT Makassar Corporate Social Responsibility Program 2023. Barongko: Journal of Health Sciences, 1(3), 228–242. <https://doi.org/10.59585/bajik.v1i3.147>
- Wuryanto, E. (2010). The relationship between work environment and individual characteristics with Job satisfaction of nurses at the Tugurejo regional general hospital, Semarang. University Indonesia.
- Scouts of Saka Bayangkara. 1996. Overcoming the Dangers of Narcotics and Psychotropics. Build Dharma Youth Printing: Jakarta.
- Shaluhiah.Z. 2010. Gathering Material Epidemiology Lecture Behavior Health. Undip Semarang,
- Spiritia Y. 2007. Obedience to Sheet Therapy information 405. foundation Spiritia. Jakarta.

