

Developing a Conceptual Model of Drug-abuse Inmates Personality, Prison Climate, Social Support, and *Maqasid* *Shariah* Quality Of Life

Mohd Norbayusri Baharudin¹, Mahadzirah Mohamad², Fazida Karim³

^{1,2,3} Faculty of Business and Management, Universiti Sultan Zainal Abidin, Kampus Gong Badak,, Kuala Terengganu, Terengganu Darul Iman, Malaysia

ABSTRACT: Drug abuse remains a major concern for Malaysia, in which most inmates comprise drug abusers. The circumstance influenced the quality of life (QoL) of inmates, and the previous research indicated that QoL is linked to personality, prison climate, and social support of inmates. Thus, the objective of a present study is to develop a model that explored the relationship between drug-abuse inmates' personality and prison climate as independent variables and QoL as the dependent variable, with perceived social support playing a role as mediator. This study aims to discover a relationship between personality-QoL, prison climate-QoL, personality-social support, prison climate-social support, social support-QoL, and social support mediation function by pointing at existing literature and reviewing earlier studies. In particular, *Maqasid Shariah Quality of Life (MSQoL)* is used, which focused on inmates QoL. A study finding enables researchers to discover relevant knowledge to fill the research gap. Besides that, this study offered practical contributions to prison authority and related agencies on designing appropriate policies and strategies to enhance inmates QoL during imprisonment.

KEYWORDS -quality of life, social support, personality, prison climate, drug abuse, inmates, *maqasid shariah*

I. SIMPLE SUMMARY

The population of inmates in Malaysia mostly related to drug cases. It is eminent that, inmates experienced a lower quality of life (QoL) than the public. Some aspect of actions to improve inmates' QoL while incarceration is worthy of motivating inmates continuing in therapy after release for becoming productive resources. Previous studies suggested that the predicting factors of inmates' QoL associated with inmates' personality, prison climate, and social support. Therefore, the objective of the current study is to propose a conceptual model based on personality-QoL, prison climate-QoL, personality-social support, prison climate-social support, social support-QoL, and mediating role of social support by looking on the literature study and review of earlier works.

II. INTRODUCTION

Prison inmates in Malaysia comprise of a majority of drug abusers. Drug abuse has been around for a long time in human civilisation, but the exact date of human use and abuse of drugs has not yet been adequately ascertained [1]. The scenarios of drug abuse include open-ended questions regarding the issue, complications concerning the issue, and appearing chronic diseases. Drug abuse leads to poor QoL, psychological problems,

and a broad varying of the clinical spectrum of drugs [2]. Substance abuse often co-occurs with other psychiatric disorders, infectious diseases, and pain conditions [3], exhibiting antisocial personality disorder (ASPD) among the addicts [4]. Previous research by Glenn et al. [5] has shown that ASPD ranges from 1% to 3% in the general population, but it is significantly higher in the prison population, which reported a 35% to 47% [6].

Drug abuse remains a significant challenge for this country despite the punitive sanctions against those caught [7]. United Nations Office on Drugs and Crime [8] stated that approximately 275 million individuals worldwide between the ages of 15 to 64 years old had abused drugs, 31 million experienced substance use disorder (SUDs), and 22,923 individuals in Malaysia exploited new substances. Meanwhile, the Malaysia Annual Drug Report 2017 reported that methamphetamines listed as the top misused drugs represented 55.2%, with Malay being the largest group of 81% and dominated by adult males [9]. In order to deal with this issue, the government has set up a special task force to promote drug addiction decriminalisation by applying the separation of rehabilitation for drug addicts and traffickers [10]. However, in reality, it is not easy to deal with it due to the changes involved in the aspects of legal policy and methods for implementation.

It is notable that, in the prison landscape, more than half of the population is convicted with various drug offences [11]. The number of drug offenders had increased steadily from 2015 to 2018. There were 45.3% of inmates committed to drug offences in 2015, 49% in 2016, and 53% in 2017 [11]. Whereas in 2018, there were 41,292 drug abuse inmates 61.5% from 67,121 inmates [13]. The increasing number of drug abuse inmates leads to overcrowding issue [14], and thus, impacting institutions and creating pressures in treatment quality, basic needs, incidents risk, and inmates' rehabilitation [12]. Due to these scenarios, this study will examine inmates' QoL by linking personalities, prison environment, and social support.

QoL is associated with happiness [15]. Ministry of Economic Affairs [16], stated that one of the government's priority under the 12th Malaysia Plan (2021-2025) is to share a prosperity initiative encompassing one of three dimensions, namely social re-engineering, which comprises improving the well-being of all Malaysians, including a better QoL among drug abuse inmates. It is eminent that inmates' QoL is lower than the public. Eriksson et al. [17] claimed that in most scenarios, the public wished to see a personality change among ex-inmates upon completion of their incarceration. They also hoped that inmates had constructive turns in prison, and thus, that could help them to contribute to a better country. Meanwhile, a study by Brazão et al. [18] found that ASPD is the most common diagnosis among inmates. They might tend to experience stress and suicidal idealisation [19]. Appropriate prison climate and social support will engage inmates with positive impacts of QoL [2, 20, 21].

III. RELATED WORKS OF LITERATURE

Inmates' Personality

Personality has been defined in many ways. It is a remarkably stable set of features influencing an individual's emotions, feelings and behaviour in various settings [22]. Besides, it also remarked as dynamic mental structures. It organises cognitive processes that determine the emotional and behavioural changes of an individual to the environment [23], and a continuum of individual characteristics that frequently distinguish between persons in terms of their basic tendencies of thinking, feeling, and action in specific ways [24]. In many countries, the reintegration of inmates' personality link to the criminal punishment process, which has a standard policy and differs in specific mechanisms of influence on the individual [25]. Participation in prison recreational activities is recognized as the key to productive QoL, along with the decisive personality of inmates identified as a significant predictor of perceived social support [26].

Most current researchers are now acknowledging that the Big Five personality traits could form an essential personality structure [27, 28]. The Big Five, also known as the Five Factors Model (FFM), with the characteristics of openness, conscientiousness, extraversion, agreeableness, and neuroticism [29]. Based on Barańczuk [30] meta-analysis study that focused on the relationship between FFM and social support, found that positive social support had resulted in lower neuroticism, and higher of extraversion, openness to experience, agreeableness, and conscientiousness. Scholars had also discovered that positive personalities favourable to QoL, including inmates [31, 32]. A previous study in Croatia, Belgium, and Japan, examined the differences of personality traits between inmates and healthy adults, reported that inmates showed higher agreeableness and conscientiousness [32]. Shimotsukasa and colleagues [32] stated that drug abuse inmates have higher results in extraversion and openness compared to theft criminals, while Terracciano et al. [33] mentioned that marijuana users have higher extraversion in the excitement-seeking facet compared to others. Based on the previous

argument, it is essential to use the composite approach of measuring drug abuse inmates' personality. Therefore, this study will apply the Big Five personality since it relates to drug abuse inmates [32].

Prison Climate

Prison climate is an underlying terminology, which embraces social, emotional, organisational, and physical characteristics of a rehabilitative institution perceived by inmates and staff[34]; familiarly known as prison environment[35,36]; social climate[37-39]; and moral climate [40]. The different aspects of prison climate had a different impact on the QoL, whereby a higher social prison climate would allow drug abuse inmates to achieve greater life satisfaction and influence inmates' way of acting during and after the incarceration [41, 7]. The dimensions of the prison climate viewed both as unit-level factors and as individual-level experiences [42]. The dimensions stated by Molleman & van der Broek[43], includes security, rights and rules, enforcement, contact with the outside world, day program, autonomy, reintegration, and expectations for the future. Meanwhile, van Ginneken et al. [42] figured out the dimensions of autonomy, safety and order, meaningful activities, relationships between prisoners and with staff, contact with the outside world, and facilities. Likewise, Williams et al. [44] proposed that prison climate distinctions expressly for therapeutic purposes and those solely for containment, which may influence many other areas of prison life, including riots disruptions and general chaos. The dimensions were not only related to the prison climate, and both inmates-inmates and inmates-staff relationships but also to maintain a relationship with the outside world [45]. This research thus applies Williams et al.,[44] study in terms of therapeutic hold, security, inmates' mutual support, readiness to change, and concepts of belonging since it is a more accurate representation of Malaysian prisons.

Social Support

Social support has been defined differently for its features and conceptualisation [46-48]. The concepts are comprehensive, which include many distinct elements, such as receiving and providing supports [49, 50]. Lin and colleagues described social support as a personal tie with other individuals, organisations, and the wider community [47], involvement of other trustworthy individuals, people who love others, and pleasures that cannot be quantified [51]. This definition is very restrictive as it seeks to choose individuals who are willing to help the network rather than provide social support [20]. Subtypes of social support include an emotional, instrumental, appraisal, and informational supports [52, 53]; esteem and network supports [54]; and companionship support [53]. Social support has its roots in the basic functionality of a social network. It could come from individuals, organisations, as well as from communities [55], organisations, and entities, such as government agencies, professionals from various fields, and social groups [56]. Social support mechanisms play an essential role in encouraging inmates to move from prison to the public [57]. However, inmates often lose their support from their family and friends due to a long history of drug abuse and involvement in crime [58]; it plays a significant role in dealing with health issues related to QoL[47]. Social support can be gained from family, friends, and significant others [59-61]. Thus, the current study could investigate perceived social support as a prove of remarkable to the inmates during incarceration [62,63].

Quality of Life (QoL)

Quality of life was defined differently by different authors based on their views and background [26,64]. Characterised as the values, experiences, happiness, living conditions, accomplishments, usability, and spirituality of cultural contexts [65]; happily within the environment [66]; well-being, happiness, ethics, and fulfilment [67]; and a beneficial consequence in life [68]. The World Health Organization[69] described QoL as the 'perception of persons' of their position in life within the scope of their culture and value systems as well as their aims, aspirations, values, and concerns which include physical, psychological, and social well-being as the smallest element[70]. Meanwhile, Mohamad, Karim et al. [2] defined it as goodness in life and achievement in living as a Muslim. In this respect, different researchers tend to define QoL differently, and there is no mutually agreed concept of QoL. Previous studies exposed that QoL components play a crucial role in supporting effective prevention, treatment approaches, and policies for inmates' recovery [26, 71, 72]. The assessment of drug abuse inmates QoL is vital as a mechanism to accommodate their needs [20]. Improper methods will only provide unreliable, insufficient, and ineffective treatment approaches to heal drug abuse inmates [20]. A current study will narrow down the concept by applying *Maqasid Shariah* Quality of Life (MSQoL) consist of religion, life, mind, lineage, and property [102], as mentioned in the Holy Quran, which is the primary source of guidance to all Muslims, including drug abuse inmates.

IV. MATERIALS AND METHODS

To this end, a question arises; whether or not the inmates' personality, prison climate, and social support can create a better QoL among drug abuse inmates. Several authors have investigated the significant relationship between QoL and personality [73-78]; and between QoL and prison climate [2, 79-82]. Subsequently, some authors have also proposed a positive relationship between social support and personality [30,83-87] and between social support and prison climate[81,88-92]. The association between social support and QoL[93-95] also been discussed previously. Meanwhile, some previous scholars also suggested that social support should play a role as a mediator [96-101], including mediating the relationship between personality and QoL[103]. Table 1 illustrated the relationship between personality, prison climate, social support, and QoL.

Table 1: The relationship of Personality, Prison Climate, Social Support and QoL

Researchers	Relationship						
	P-QoL	PC-QoL	P-SS	PC-SS	SS-QoL	P-SS-QoL	PC-SS-QoL
Ridgewell et al., (2017)	/	NA	NA	NA	NA	NA	NA
Gao et al., (2017)	/	NA	NA	NA	NA	NA	NA
Huebner, (2018)	/	NA	NA	NA	NA	NA	NA
Balogun, (2014)	/	NA	NA	NA	/	NA	NA
Pontone et al., (2017)	/	NA	NA	NA		NA	NA
Cramer et al., (2006)	/	NA	NA	NA	NA	NA	NA
van Ginneken et al., (2018)	NA	/	NA	NA	NA	NA	NA
Mohamad, Mat Ali, et al., (2017)	NA	/	NA	NA	NA	NA	NA
Ware & Galouzis, (2019)	NA	/	NA	NA	NA	NA	NA
Skar et al., (2019)	NA	/	NA	NA	NA	NA	NA
Nowotny et al., (2016)	NA	/	NA	NA	NA	NA	NA
Barańczuk, (2019)	NA	NA	/	NA	NA	NA	NA
Mohammadi et al., (2018)	NA	NA	/	NA	NA	NA	NA
Molino et al., (2018)	NA	NA	/	NA	NA	NA	NA
Ng & Ahmad, (2018)	NA	NA	/	NA	NA	NA	NA
R. J. Swickert et al., (2002)	NA	NA	/	NA	NA	NA	NA
R. Swickert, (2012)	NA	NA	/	NA	NA	NA	NA
Tulin et al., (2018)	NA	NA	/	NA	NA	NA	NA
Lewis, (2019)	NA	NA	NA	/	NA	NA	NA
Sauter et al., (2019)	NA	NA	NA	/	NA	NA	NA
van Ginneken et al., (2019)	NA	NA	NA	/	NA	NA	NA
Yitayih et al., (2018)	NA	NA	NA	/	NA	NA	NA
Lambert et al., (2016)	NA	NA	NA	/	NA	NA	NA
Aday, (2005)	NA	NA	NA	/	NA	NA	NA
Day et al., (2011)	NA	NA	NA	/	NA	NA	NA
Sun et al., (2017)	NA	NA	NA	NA	/	NA	NA
Ma et al., (2015)	NA	NA	NA	NA	/	NA	NA
Karim et al., (2019)	NA	NA	NA	NA	/	NA	NA
Clark et al., (2019)	NA	NA	NA	NA	NA	/	NA

Notes: (/) Significant, (NA) Not applicable, (P) Personality, (PC) Prison Climate, (SS) Social Support, and (QoL) Quality of Life

Notwithstanding, none of these studies had investigated the relationship between inmates' personality, prison climate, QoL, and social support as a mediator in one complex model. Therefore, this study proposed these relationships among drug abuse inmates by applying *Maqasid Shariah* Quality of Life (MSQoL). The research might provide valuable information on different aspects of the variables as well as provide insights on the mediating role of social support in the connection between the personality-QoL and the climate-QoL. Recommendation of a framework, which explores the interaction between the personality of inmates, prison climate, social support, and quality of life experienced by inmates of drug abuse, will be proposed.

The current research suggests that aspects of personality, prison climate, and social support that would help to improve the QoL of drug abuse inmates based on the structured as follows:

- i. To determine the direct impact of personality on social support and QoL of drug-abuse inmates.
- ii. To determine the direct impact of prison climate on social support and QoL of drug abuse inmates.
- iii. To determine the direct impact of social support on the QoL of drug abuse inmates.
- iv. To determine the mediating role of social support on the relationship between inmates' personality-QoL and prison climate-QoL of drug abuse inmates.

In addition, figure 1 illustrates the proposed hypothetical model of inmates' personality, prison climate, social support, and QoL. The relationships depicted in the model is drawn from the literature reviews. This study proposed the following hypotheses:

- H1: There is a significant effect between personality and quality of life
H2: There is a significant effect between prison climate and quality of life
H3: There is a significant effect between personality and social support
H4: There is a significant effect between prison climate and social support
H5: There is a significant effect between social support and quality of life
H6: Social support mediates the relationship between personality and quality of life
H7: Social support mediates the relationship between prison climate and quality of life

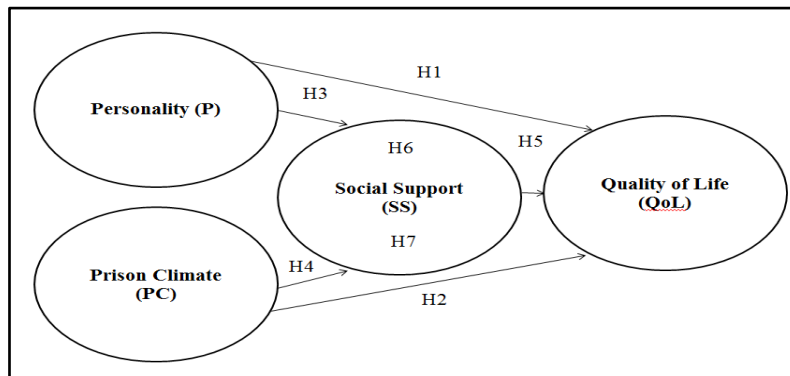


Figure 1: Model of the relationships between personality, prison climate, social support and QoL

V. CONCLUSION

The results of the study will lead to the discovery of applicable information to resolve the research gap. Besides, the research would provide particularly meaningful practical contributions to the Malaysian Prison Department on issues relevant to the rehabilitation of QoL drug-abused inmate. In addition, the prison system can gain some insight into the implementation of effective policies and techniques to enhance QoL of drug-abuse inmates. This study introduced a research method to explore personality, prison climate, and social support and QoL relationship between drug abuse inmates. It is also expected to show a positive relationship between personality-QoL and prison climate-QoL and the mediating role of social support. Overall, the study indicates that personality, prison climate, and social support dimensions suggested in the QoL conceptual framework will assist prison management in creating practical initiatives that will encourage drug-abuse inmates to achieve better QoL.

The study only provides a proposal for a research project on the effect of personality, prison climate, and social support on QoL in order to propose suitable strategies for prison authorities. The next step of this study is to perform Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) using Structural Equation Modeling (SEM) to analyse and validate the relationship through empirical data collection.

VI. Acknowledgements

This research is with the permission of the Malaysian Prison

REFERENCES

- [1.] Nurdeng, D., & Nurfatin Afza, M. M. (2018). Keberkesanan Rawatan dan Pemulihan Dadah. *Sipatahoenan*, 4(2), 95–124.
- [2.] Mohamad, M., Karim, F., Ali, N. A. M., & Mohamed, H. (2017). A Conceptual Model of Perceived Social Support, Maqasid Shariah Quality of Life and Health Status. *Research Journal of Medical Sciences*, 11(1), 62–68. <https://doi.org/10.14419/ijet.v7i4.10452>
- [3.] Zibbell, J. E., Iqbal, K., Patel, R. C., Suryaprasad, A., Sanders, K. J., Moore-Moravian, L., Serrecchia, J., Blankenship, S., Ward, J. W., & Holtzman, D. (2015). Increases in hepatitis C virus infection related to injection drug use among persons aged ≤ 30 years — Kentucky, Tennessee, Virginia, and West Virginia, 2006–2012. *Morbidity and Mortality Weekly Report*, 64(17), 453–458.
- [4.] Smith, R. V., Young, A. M., Mullins, U. L., & Havens, J. R. (2017). Individual and Network Correlates of Antisocial Personality Disorder Among Rural Nonmedical Prescription Opioid Users. *Journal of Rural Health*, 33(2), 198–207. <https://doi.org/10.1111/jrh.12184>
- [5.] Glenn, A. L., Johnson, A. K., & Raine, A. (2013). Antisocial personality disorder: A current review. *Current Psychiatry Reports*, 15(12). <https://doi.org/10.1007/s11920-013-0427-7>
- [6.] Fazel, S., & Baillargeon, J. (2011). The health of prisoners. *The Lancet*, 377(9769), 956–965. [https://doi.org/10.1016/S0140-6736\(10\)61053-7](https://doi.org/10.1016/S0140-6736(10)61053-7)
- [7.] Mohamad, M., Awang, Z., & Ali, N. A. M. (2017). Validating the Maqasid Shariah Prison Quality of Life (MSPQoL) among drug-abuse inmates using confirmatory factor analysis. *International Journal of Applied Business and Economic Research*, 15(24), 91–103.
- [8.] United Nations Office on Drugs and Crime. (2019). *World Drug Report 2019 - Global overview of drug demand and supply*. United Nations publication. <https://doi.org/10.18356/bdc264f4-en>
- [9.] National Anti-Drug Agency (NADA). (2018). *Maklumat Dadah, 2017*. <https://www.adk.gov.my/wp-content/uploads/Terkini-Maklumat-Dadah-2017.pdf>
- [10.] The Star Online. (2019). Govt has formed a special task force to speed up decriminalising drug addiction, says Syed Saddiq. <https://www.thestar.com.my/news/nation/2019/10/29/govt-has-formed-special-task-force-to-speed-up-decriminalising-drug-addiction-says-syed-saddiq>
- [11.] Mohamad, M., Mat Ali, N. A., & Muhammad, N. (2017). Measurement of Drug-abuse Inmates' Prison Climate: Confirmatory Factor Analysis. *International Journal of Applied Business and Economic Research*, 15(25), 405–421.
- [12.] Morgan, N., Morgan, R., & Morgan, N. (2018). 38th Asian and Pacific Conference of Correctional Administrators (APCCA).
- [13.] Jabatan Penjara Malaysia. (2019). *Statistik banduan / tahanan / penghuni harian SMPP (1 November 2019)*.
- [14.] Omar, Z. (2014). Pengaruh kepimpinan, lokus kawalan dan efikasi sendiri ke atas pematuhan perintah tetap Komisioner Jeneral Penjara di Jabatan Penjara Malaysia. *Universiti Utara Malaysia*.
- [15.] Baharudin, M. N., Mohamad, M., & Karim, F. (2020). Drug-abuse inmates maqasid shariah quality of life: A conceptual paper. *Humanities and Social Sciences Reviews*, 8(3), 1285–1294.
- [16.] Ministry of Economic Affairs. (2019). *Twelfth Malaysia Plan, 2021-2025. Malaysian Administrative Modernisation and Management Planning Unit (MAMPU)*. <http://rmke12.mea.gov.my/about-us>
- [17.] Eriksson, T. G., Masche-No, J. G., & Däderman, A. M. (2017). Personality traits of prisoners as compared to general populations: Signs of adjustment to the situation? *Personality and Individual Differences*, 107, 237–245. <https://doi.org/10.1016/j.paid.2016.11.030>
- [18.] Brazão, N., Rijo, D., da Silva, D. R., do Céu Salvador, M., & Pinto-Gouveia, J. (2019). Personality Pathology Profiles as Moderators of the Growing Pro-Social Program: Outcomes on Cognitive, Emotion, and Behavior Regulation in Male Prison Inmates. *Journal of Personality Disorders*, 1–30. https://doi.org/10.1521/pedi_2019_33_424
- [19.] Jahn, D., Poindexter, E., & Cukrowicz, K. C. (2015). Personality disorder traits, risk factors, and suicide ideation among older adults. *International Psychogeriatrics*, 27(11), 1785–1794.
- [20.] Mohamad, M., Ali, N. A. M., Yusoff, H. M., & Omar, N. (2015). Validating the Measurement of Maqasid Syariah Quality of Life (I-QoL) Model among Spiritual Rehabilitation Drug Abusers. *The International Institute of Advanced Islamic Studies*, 1–15.
- [21.] Wallace, D., Fahmy, C., Cotton, L., Jimmons, C., McKay, R., Stoffer, S., & Syed, S. (2016). Examining the role of familial support during prison and after release on post-incarceration mental health. *International Journal of Offender Therapy and Comparative Criminology*, 60(1), 3–20. <https://doi.org/10.1177/0306624X14548023>
- [22.] Oshio, A., Abe, S., Cutrone, P., & Gosling, S. D. (2013). Big Five Content Representation of the Japanese Version of the Ten-Item Personality Inventory. *Psychology*, 04(12), 924–929. <https://doi.org/10.4236/psych.2013.412133>
- [23.] James, L. R., & Mazerolle, M. D. (2001). *Personality in work organisations*. SAGE Publications, Inc.
- [24.] Ones, D. S., Viswesvaran, C., & Dilchert, S. (2005). Personality at Work: Raising Awareness and Correcting Misconceptions. *Human Performance*, 18(4), 1–13. <https://doi.org/10.1207/s15327043hup1804>
- [25.] Timofeeva, E. (2019). Foreign Prison Experience Resocialization of Prisoners. *SHS Web of Conferences*, 62, 12004. <https://doi.org/10.1051/shsconf/20196212004>

- [26.] Ayobami Obadiora, H. (2018). Comparative Effect of Participation in Different Sports on Quality of Life Perception by Inmates of Ilesa Prison in the Osun State of Nigeria. *International Journal of Sports Science and Physical Education*, 3(1), 9. <https://doi.org/10.11648/j.ijsspe.20180301.12>
- [27.] Goldberg, L. R. (1990). An Alternative "Description of Personality": The Big-Five Factor Structure. *Journal of Personality and Social Psychology*. <https://doi.org/10.1037/0022-3514.59.6.1216>
- [28.] Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, 37(6), 504–528. [https://doi.org/10.1016/S0092-6566\(03\)00046-1](https://doi.org/10.1016/S0092-6566(03)00046-1)
- [29.] Roberts, B. W., & DelVecchio, W. F. (2000). The rank-order consistency of personality traits from childhood to old age: A quantitative review of longitudinal studies. *Psychological Bulletin*, 126(1), 3–25. <https://doi.org/10.1037/0033-2909.126.1.3>
- [30.] Barańczuk, U. (2019). The Five-Factor Model of personality and social support: A meta-analysis. *Journal of Research in Personality*, 81, 38–46. <https://doi.org/10.1016/j.jrp.2019.05.002>
- [31.] De Smet, S., De Donder, L., Ryan, D., Van Regenmortel, S., Brosens, D., & Vandeveldel, S. (2017). Factors related to the quality of life of older prisoners. *Quality of Life Research*, 26(6), 1571–1585. <https://doi.org/10.1007/s11136-017-1506-8>
- [32.] Shimotsukasa, T., Oshio, A., Tani, M., & Yamaki, M. (2019). Big Five personality traits in inmates and healthy adults in Japan. *Personality and Individual Differences*, 141(October 2018), 81–85. <https://doi.org/10.1016/j.paid.2018.12.018>
- [33.] Terracciano, A., Löckenhoff, C. E., Crum, R. M., Bienvenu, O. J., & Costa, P. T. (2008). Five-factor model personality profiles of drug users. *BMC Psychiatry*, 8, 1–10. <https://doi.org/10.1186/1471-244X-8-22>
- [34.] Ross, M. W., Diamond, P. M., Liebling, A., & Saylor, W. G. (2008). Measurement of prison social climate: A comparison of an inmate measure in England and the USA. *Punishment and Society*, 10(4), 447–474. <https://doi.org/10.1177/1462474508095320>
- [35.] Saylor, W. G. (1984). *Surveying prison environments*. Federal Bureau of Prisons.
- [36.] Wright, K. N. (1985). Developing the Prison Environment Inventory. *Research in Crime and Delinquency*, 22(3), 257–277. <https://doi.org/10.1177/07399863870092005>
- [37.] Moos, R. H. (1975). *Evaluating correctional and community settings* (Wiley-Interscience (ed.)).
- [38.] Schalast, N., Redies, M., & Collins, M. (2008). EssenCES, a short questionnaire for assessing the social climate of forensic psychiatric wards. *Criminal Behaviour and Mental Health*, 18, 49–58. <https://doi.org/10.1002/cbm>
- [39.] Schalast, N., & Tonkin, M. (2016). *The Essen Climate Evaluation Schema – EssenCES*. Hogrefe Publishing.
- [40.] Ross, M., Liebling, A., & Tait, S. (2011). The Relationships of Prison Climate to Health Service in Correctional Environments: Inmate Health Care Measurement, Satisfaction, and Access in Prisons. *The Howard Journal of Criminal Justice*, 50(3), 262–274. <https://doi.org/10.1111/j.1468-2311.2011.00658.x>
- [41.] Ali, N. A. M., Mohamad, M., Muhammad, N., Yusoff, H. M., & Omar, N. (2016). The impact of social climate on life satisfaction of drug-abuse inmates in Malaysia prison. *International Journal of Applied Business and Economic Research*, 14(13), 9453–9464.
- [42.] van Ginneken, E. F. J. C., Palmen, H., Bosma, A. Q., & Sentse, M. (2019). Bearing the Weight of Imprisonment: The Relationship Between Prison Climate and Well-Being. *Criminal Justice and Behavior*, 46(10), 1385–1404. <https://doi.org/10.1177/0093854819867373>
- [43.] Molleman, T., & van der Broek, T. C. (2014). Understanding the links between perceived prison conditions and prison staff. *International Journal of Law, Crime and Justice*, 42(1), 33–53. <https://doi.org/10.1016/j.ijlcrj.2014.01.001>
- [44.] Williams, L. S., Green, E. L. W., & Chernoff, W. A. (2019). "There is More to It Than Just a Box Check": Measuring Prison Climate in Three Correctional Facilities. *International Journal of Offender Therapy and Comparative Criminology*, 63(8), 1354–1383. <https://doi.org/10.1177/0306624X18821090>
- [45.] Bosma, A. Q., Esther, E. F. J., Sentse, M., & Palmen, H. (2019). Examining Prisoner Misconduct: A Multilevel Test Using Personal Characteristics, Prison Climate, and Prison Environment. *Crime and Delinquency*. <https://doi.org/10.1177/001128719877347>
- [46.] Cutrona, C. E., & Russell, D. W. (1990). Type of social support and specific stress: Toward a theory of optimal matching. *Social Support: An Interactional View.*, January 1990, 319–366. <https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=1990-97699-013&site=ehost-live>
- [47.] Kim, S., Ouellet, L. J., Mazza, J., & Spaulding, A. C. (2017). Rasch Analysis and Differential Item Functioning of a Social Support Measure in Jail Inmates With HIV Infection. *Evaluation and the Health Professions*, 40(1), 33–60. <https://doi.org/10.1177/0163278716644954>
- [48.] McDonough, M. H., Beselt, L. J., Daun, J. T., Shank, J., Culos-Reed, S. N., Kronlund, L. J., & Bridel, W. (2019). The role of social support in physical activity for cancer survivors: A systematic review. *Psycho-Oncology*, 28(10), 1945–1958. <https://doi.org/10.1002/pon.5171>
- [49.] Jacobs, S., & Holtzer, R. (2019). Predicting change in perceived social support in late life: The role of personality and gender. *Ageing and Mental Health*, 0(0), 1–11. <https://doi.org/10.1080/13607863.2019.1671317>
- [50.] Karim, F., Mohamad, M., & Muhammad, N. (2019). Mental health mediates social support to predict the quality of life among drug-abuse inmates. *Indian Journal of Public Health Research and Development*, 10(4), 776–781. <https://doi.org/10.5958/0976-5506.2019.00797.6>
- [51.] Sahban, M. A., Kumar, D., & Ramalu, S. S. (2015). Instrument Development: Entrepreneurial Social Support Assessment Instrument (IESSA). *Research Journal of Economic & Business Studies*, 4(3), 21–36.
- [52.] Berkman, L., & Kawachi, I. (2014). *Social epidemiology*. Oxford University Press.
- [53.] Uchino, B. N. (2006). Social support and health: A review of physiological processes potentially underlying links to disease outcomes. *Journal of Behavioral Medicine*, 29(4), 377–387. <https://doi.org/10.1007/s10865-006-9056-5>

- [54.] Xu, Y., & Burlison, B. R. (2001). Effects of Sex, Culture, and Support Type on Perceptions of Spousal Social Support An Assessment of the "Support Gap" Hypothesis in Early Marriage. *Human Communication Research*, 27(4), 535–566. <https://doi.org/10.1080/10510974.2018.1464043>
- [55.] Nargiso, J. E., Kuo, C. C., Zlotnick, C., & Johnson, J. E. (2014). Social Support Network Characteristics of Incarcerated Women with Co-Occurring Major Depressive and Substance Use Disorders. *Journal of Psychoactive Drugs*, 46(2), 93–105. <https://doi.org/10.1080/02791072.2014.890766>
- [56.] Lethin, C., Leino-Kilpi, H., Roe, B., Soto, M. M., Saks, K., Stephan, A., Zwakhalen, S., Zabalegui, A., & Karlsson, S. (2016). Formal support for informal caregivers to older persons with dementia through the course of the disease: An exploratory, cross-sectional study. *BMC Geriatrics*, 16(1). <https://doi.org/10.1186/s12877-016-0210-9>
- [57.] La Vigne, N. G., Shollenberger, T. L., & Debus, S. A. (2009). One Year Out: Tracking the Experiences of Male Prisoners Returning to Houston, Texas. *Urban Institute*, 1–21. <https://doi.org/10.1037/e719212011-001>
- [58.] Lichtenstein, B., Laska, M. K., & Clair, J. M. (2002). Chronic sorrow in the HIV-positive patient: Issues of race, gender, and social support. *AIDS Patient Care and STDs*, 16(1), 27–38. <https://doi.org/10.1089/108729102753429370>
- [59.] Alami, S., Latifian, R., & Zandi, S. (2019). Comparison of self-perception and perceived social support in addicts undergoing maintenance therapy and abstinence treatment. *International Journal of Body, Mind and Culture*, 6(1), 42–49. <https://doi.org/10.22122/ijbmc.v6i1.139>
- [60.] Bugajski, A., Frazier, S. K., Moser, D. K., Lennie, T. A., & Chung, M. (2019). Psychometric testing of the Multidimensional Scale of Perceived Social Support in patients with comorbid COPD and heart failure. *Heart and Lung*, 48(3), 193–197. <https://doi.org/10.1016/j.hrtlng.2018.09.014>
- [61.] Cauty-Mitchell, J., & Zimet, G. D. (2000). Psychometric properties of the multidimensional scale of perceived social support in urban adolescents. *American Journal of Community Psychology*, 28(3), 391–400. <https://doi.org/10.1023/A:1005109522457>
- [62.] Dadi, A. F., Dachew, B. A., Tariku, A., Habitu, Y. A., & Demissie, G. D. (2019). Status of perceived social support and its associated factors among inmate prisoners in Northwest Amhara, Ethiopia. *BMC Research Notes*, 12(1), 1–6. <https://doi.org/10.1186/s13104-019-4696-z>
- [63.] Richie, F. J., Bonner, J., Wittenborn, A., Weinstock, L. M., Zlotnick, C., & Johnson, J. E. (2019). Social Support and Suicidal Ideation Among Prisoners with Major Depressive Disorder. *Archives of Suicide Research*, 0(0), 000. <https://doi.org/10.1080/13811118.2019.1649773>
- [64.] Mohamad, M. (2007). Modelling coastal zone community quality of life and health status. *The International Journal of Social Sciences*, 2(6), 39–48.
- [65.] Fumincelli, L., Mazzo, A., Martins, J. C. A., & Mendes, I. A. C. (2017). Quality of life and ethics. *Nursing Ethics*, 096973301668981. <https://doi.org/10.1177/0969733016689815>
- [66.] Kane, R. A. (2001). Long-Term Care and a Good Quality of Life: Bringing Them Closer Together. *Ethics & Behavior*, 41(3), 293–304. https://doi.org/10.1207/s15327019eb0101_6
- [67.] Frank, A. M. (1980). Social indicators of well-being: Americans' perceptions of life quality. *Evaluation and Program Planning*, 3(1), 63. [https://doi.org/10.1016/0149-7189\(80\)90013-0](https://doi.org/10.1016/0149-7189(80)90013-0)
- [68.] Abrefa-Gyan, T., Cornelius, L. J., & Okundaye, J. (2016). Socio-demographic factors, social support, quality of life, and HIV/AIDS in Ghana. *Journal of Evidence-Informed Social Work*, 13(2), 206–216. <https://doi.org/10.1080/23761407.2015.1018033>
- [69.] World Health Organization. (2002). WHOQOL-SRPB user's manual. Department of mental health & substance dependence, WHO.
- [70.] Post, M. W. M. (2014). Definitions of quality of life: What has happened and how to move on. *Topics in Spinal Cord Injury Rehabilitation*, 20(3), 167–180. <https://doi.org/10.1310/sci2003-167>
- [71.] Laudet, A. B. (2011). The case for considering the quality of life in addiction research and clinical practice. *Addiction Science & Clinical Practice*, 6(1), 44–55.
- [72.] Mohamad, M., Ali, N. A. M., Awang, Z., Omar, N., & Yusoff, H. M. (2016). Validating the Measurement of Maqasid Syariah Prison Quality of Life MSPQoL among Drug Abuse Inmates. *International Journal of Social Science & Human Behavior Study*, 3(2), 31–35. <https://doi.org/10.15224/978-1-63248-094-1-55>
- [73.] Balogun, A. G. (2014). Dispositional factors, perceived social support and happiness among prison inmates in Nigeria: A new look. *Happiness and Well-being*, 2(1), 16–33.
- [74.] Cramer, V., Torgersen, S., & Kringlen, E. (2006). Personality disorders and quality of life. A population study. *Comprehensive Psychiatry*, 47(3), 178–184. <https://doi.org/10.1016/j.comppsy.2005.06.002>
- [75.] Gao, T., Xiang, Y. T., Zhang, H., Zhang, Z., & Mei, S. (2017). Neuroticism and quality of life: Multiple mediating effects of smartphone addiction and depression. *Psychiatry Research*, 258(February), 457–461. <https://doi.org/10.1016/j.psychres.2017.08.074>
- [76.] Huebner, E. S. (2018). Quality of Life and Personality Development: A Reply to Land and Michalos. *Social Indicators Research*, 135(3), 1021–1025. <https://doi.org/10.1007/s11205-017-1560-1>
- [77.] Pontone, G. M., Mari, Z., Perepezko, K., Weiss, H. D., & Bassett, S. S. (2017). Personality and reported quality of life in Parkinson's disease. *International Journal of Geriatric Psychiatry*, 32(3), 324–330. <https://doi.org/10.1002/gps.4475>
- [78.] Ridgewell, C., Blackford, J. U., McHugo, M., & Heckers, S. (2017). Personality traits predicting quality of life and overall functioning in schizophrenia. *Schizophrenia Research*, 182, 19–23. <https://doi.org/10.1016/j.schres.2016.10.007>
- [79.] Nowotny, K. M., Cepeda, A., James-Hawkins, L., & Boardman, J. D. (2016). Growing Old Behind Bars: Health Profiles of the Older Male Inmate Population in the United States. *J Aging Health*, 28(6), 935–956. <https://doi.org/10.1016/j.physbeh.2017.03.040>
- [80.] Skar, M., Lokdam, N., Liebling, A., Muriqi, A., Haliti, D., Rushiti, F., & Modvig, J. (2019). Quality of prison life, violence and mental health in Dubrava prison. *International Journal of Prisoner Health*, 15(3), 262–272. <https://doi.org/10.1108/IJPH-10-2017-0047>

- [81.] van Ginneken, E. F. J. C., Palmen, H., Bosma, A. Q., Nieuwebeerta, P., & Berghuis, M. L. (2018). The Life in Custody Study: the quality of prison life in Dutch prison regimes. *Journal of Criminological Research, Policy and Practice*, 4(4), 253–268. <https://doi.org/10.1108/JCRPP-07-2018-0020>
- [82.] Ware, J., & Galouzis, J. (2019). Impact of Prison Climate on Individuals with Sexual Convictions: Desistance and Rehabilitation. In *Sexual Crime and the Experience of Imprisonment* (pp. 35–60). Springer International Publishing. https://doi.org/10.1007/978-3-030-04930-0_2
- [83.] Mohammadi, E., Bagheri, M., & Asgarizadeh, G. (2018). The Role of Perceived Social Support and Aspects of Personality in the Prediction of Marital Instability: The Mediating Role of Occupational Stress. *International Journal of Psychology*, 12(1), 162–185. <https://doi.org/10.24200/ijpb.2018.58147>
- [84.] Molino, M., Dolce, V., Cortese, C. G., & Ghislieri, C. (2018). Personality and social support as determinants of entrepreneurial intention. Gender differences in Italy. *PLoS ONE*, 13(6), 1–19. <https://doi.org/10.1371/journal.pone.0199924>
- [85.] Ng, K. H., & Ahmad, R. (2018). Personality traits, social support, and training transfer: The mediating mechanism of motivation to improve work through learning. *Personnel Review*, 47(1), 39–59. <https://doi.org/10.1108/PR-08-2016-0210>
- [86.] Swickert, R. (2012). Personality and social support processes. *The Cambridge Handbook of Personality Psychology*, 524–540. <https://doi.org/10.1017/cbo9780511596544.033>
- [87.] Tulin, M., Lancee, B., & Volker, B. (2018). Personality and Social Capital. *Social Psychology Quarterly*, 81(4), 295–318. <https://doi.org/10.1177/0190272518804533>
- [88.] Aday, R. H. (2005). Ageing prisoners' concerns toward dying in prison. *Omega: Journal of Death and Dying*, 52(3), 199–216. <https://doi.org/10.2190/CHTD-YL7T-R1RR-LHMN>
- [89.] Lambert, E. G., Minor, K. I., Wells, J. B., & Hogan, N. L. (2016). Social support's relationship with correctional staff job stress, job involvement, job satisfaction, and organisational commitment. *Social Science Journal*, 53(1), 22–32. <https://doi.org/10.1016/j.soscij.2015.10.001>
- [90.] Lewis, S. (2019). The powerful role of multi-agent relationships in prison rehabilitation. In A. Pycroft & D. Gough (Eds.), *Multi-Agency Working in Criminal Justice: Theory, Policy and Practice* (2nd ed., p. 184). Policy Press.
- [91.] Sauter, J., Vogel, J., Seewald, K., Hausam, J., & Dahle, K. P. (2019). Let us work together — occupational factors and their correlates to prison climate and inmates' attitudes towards treatment. *Frontiers in Psychiatry*, 10(OCT), 1–8. <https://doi.org/10.3389/fpsy.2019.00781>
- [92.] Yitayih, Y., Abera, M., Tesfaye, E., Mamaru, A., Soboka, M., & Adorjan, K. (2018). Substance use disorder and associated factors among prisoners in a correctional institution in Jimma, Southwest Ethiopia: a cross-sectional study. *BMC Psychiatry*, 18(1), 1–9. <https://doi.org/10.1186/s12888-018-1901-x>
- [93.] Hamdy, A., Fazida, K., Rashidah, M. I., Asyraf, A., Ahmad, M. bin S., Mohd, H. H., & Mahadzirah, M. (2019). Connecting the dots between the Big Five and innovative work behaviour: Maslow and Maqasid Al-Shari'a Perspectives. *Espacios*, 40(27).
- [94.] Ma, L., Li, Y., Wang, J., Zhu, H., Yang, W., Cao, R., Qian, Y., & Feng, M. (2015). Quality of life is related to social support in elderly osteoporosis patients in a Chinese population. *PLoS ONE*, 10(6), 1–10. <https://doi.org/10.1371/journal.pone.0127849>
- [95.] Sun, N., Lv, D. M., Man, J., Wang, X. Y., Cheng, Q., Fang, H. L., Fu, Z., Liu, S., & Wu, Q. H. (2017). The correlation between the quality of life and social support in female nurses. *Journal of Clinical Nursing*, 26(7–8), 1005–1010. <https://doi.org/10.1111/jocn.13393>
- [96.] Bhattacharya, A. (2019). Designing to support teen mental health using asynchronous online groups. *Proceedings of the 18th ACM International Conference on Interaction Design and Children, IDC 2019*, 723–727. <https://doi.org/10.1145/3311927.3325352>
- [97.] Hoppen, T. H., & Chalder, T. (2018). Childhood adversity as a transdiagnostic risk factor for affective disorders in adulthood: A systematic review focusing on biopsychosocial moderating and mediating variables. *Clinical Psychology Review*, 65(December 2017), 81–151. <https://doi.org/10.1016/j.cpr.2018.08.002>
- [98.] McNeil Smith, S., Sun, R., & Gordon, M. S. (2019). Racial Discrimination and Psychological Distress Among African American Adolescents: Investigating the Social Support Deterioration Model. *Journal of Child and Family Studies*, 28(6), 1613–1622. <https://doi.org/10.1007/s10826-019-01397-6>
- [99.] Nho, C. R., Yoon, S., Seo, J., & Cui, L. (2019). The mediating effect of perceived social support between depression and school adjustment in refugee children in South Korea. *Children and Youth Services Review*, 106(February), 104474. <https://doi.org/10.1016/j.childyouth.2019.104474>
- [100.] Whitehead, B. (2018). Religiousness on mental health in older adults: the mediating role of social support and healthy behaviours. *Mental Health, Religion and Culture*, 21(4), 429–441. <https://doi.org/10.1080/13674676.2018.1504906>
- [101.] Yang, Z., Tian, Y., Fan, Y., Liu, L., Luo, Y., Zhou, L., & Yu, H. (2019). The mediating roles of caregiver social support and self-efficacy on caregiver burden in Parkinson's disease. *Journal of Affective Disorders*, 256(November 2018), 302–308. <https://doi.org/10.1016/j.jad.2019.05.064>
- [102.] Baharudin, M. N., Mohamad, M., & Karim, F. (2020). Drug-abuse Inmates Maqasid Shariah Quality of Life: A Conceptual Paper. *Humanities & Social Sciences Reviews*, 8(3), 1285–1294. <https://doi.org/https://doi.org/10.18510/hssr.2020.83131>
- [103.] Clark, E. M., Williams, R. M., Park, C. L., Schulz, E., Williams, B. R., & Knott, C. L. (2019). Explaining the Relationship Between Personality and Health in a National Sample of African Americans: The Mediating Role of Social Support. *Journal of Black Psychology*, 45(5), 339–375. <https://doi.org/10.1177/0095798419873529>