**Assessing Attitudes towards Rehabilitation During the COVID-19 Pandemic: A Natural Comparative “Intervention”**

**Abstract**

This study examined how the emotional impact of social isolation during the COVID-19 pandemic, as a natural intervention that emulate an after-only pre-experiemental design, and acquired knowledge about shaping criminology and criminal justice affected students’ attitudes towards rehabilitation of convicted offenders. Using web-based surveys to measure rehabilitative and punitive attitudes, quantitative data from a voluntary sample of 192 criminology and criminal justice undergraduate students from Israel and the United States was analyzed to ascertain the effect of isolation, knowledge, cultural differences, and selected demographic variables on attitudes. Descriptive statistics and hierarchical regression, reveal that the majority of respondents reported being affected by the lockdown and isolation; however, U.S. students reported more difficulties than did their Israeli counterparts, who expressed significantly less supportive attitudes towards rehabilitation than the U.S. students. The findings support the hypotheses that both the affective (feeling) and the cognitive components are related to attitude and are important in understanding how attitudes form. Students who reported that the isolation affected them emotionally were more likely to exhibit attitudes supportive of rehabilitation. Knowledge was also associated with attitudes supportive of rehabilitation. The research validated the value of evaluating the emotional and knowledge components when examining attitudes towards offenders’ rehabilitation.

**Introduction**

Many criminal justice policies represent hasty or expedient political responses to often ill-considered and uninformed public outcries; such policies reflect politicians’ attempts to appease the public and secure their support and votes during elections rather than genuine attention to the issue. Therefore, it is important to examine attitudes towards punishment or rehabilitation, as they have the power to shape criminal justice policy in terms of responses to and treatment of lawbreakers. Attitudes are essentially approaches to the performance of actions that lead individuals to behave in a certain manner towards the relevant objects. Thus, attitudinal research studies have the important ability to inform and influence policy.

A valid test of attitudes must include three components: knowledge (cognitive), feeling (affective) and action (behavioral), because a change in attitude constitutes a change in one or all of the three components (Hornik, 1988). Accordingly, particular importance is attached to testing the effect of each component regarding attitudes towards rehabilitation. In terms of the affective component, individuals’ attitudes are influenced by their experiences and by the constellation of positive and negative feelings involved in their experiences. This relates not only to acquired knowledge but also to personal exposure and experiences (Hornik, 1988; Otto, 2021). Support for the importance of the cognitive component in consolidating attitudes was found in several studies that examined attitudes towards people with intellectual limitations. Morin et al. (2013) found that participants who demonstrated knowledge regarding the various difficulties faced by individuals with such limitations displayed more positive attitudes towards those individuals. Lalo and Einat (2011) showed that the attitudes of students studying criminology, criminal justice, and sentencing towards penalization were associated with the level of knowledge they acquired in their studies. Despite the importance of the cognitive component, it is limited in terms of experience, and in most cases does not involve a personal involvement that determines the feeling/ affective component.

Research conducted on attitudes towards punishment throughout the world have confirmed the relationship between demographic statistics – such as gender, age, ethnicity, level of education, and political affiliation – and punitive attitudes (Applegate et al., 1997; Gideon & Hsiao, 2012; Gideon & Loveland, 2011; Gideon & Sherman, 2014; Kuhn, 1993; Maruna & King, 2009, 2013). However, these studies are limited in terms of their ability to test the relationship between the cognitive and affective components in determining attitudes. Specifically, the above mentioned studies that aimed to examine attitudes toward punishment, incarceration and rehabilitation tended to focus on the knowledge/cognitive component. However, there are no studies, to our knowledge, that examine the feeling/ affective component as it comes from exposure to isolation and emulate some aspects of “pains of incarceration”. While it is unethical to introduce such conditions to people who are asked to opine on isolation, the COVID pandemic presented a unique opportunity to examine such component (i.e, natural intervention), as people were forced to isolate in their homes.

The objective of the present study is an attempt to bridge the gap in previous studies by using a natural situation that compelled individuals to experience social isolation. The COVID-19 pandemic, which emerged worldwide in late 2019, forced people to remain housebound, cutting them off from most of their daily routines and social contacts. This experience enabled measurement of the contribution of the affective component towards punishment. Accordingly, the present research examines the attitudes of students of criminology and criminal justice towards the penalization of criminals in the wake of COVID-19. More specifically, the aim was to determine whether the experience of isolation, alongside the knowledge they acquired in the framework of their studies, contributed to shaping attitudes that are less punitive and more rehabilitative.

**Social Responses to Crime and Punitive Attitudes**

The issue of the appropriate response to lawbreakers is age-old, revolving around the dilemma inherent in deciding on the most effective way to deal with crime: Commensurate punishment or rehabilitation. The literature addressing the issue is extensive (Cornwell, 2006; Gromet & Darley, 2009), and each study or theoretical approach deals differently with the question of the criminal’s mindset in deciding to commit a crime. Commensurate punishment is advocated when free choice and rationalization are attributed to the offender, compared to advocating rehabilitation when limited choice and determinism are attributed to them (Lernau, 2016).

Recently, a change is being witnessed in Israel in all matters relating to policy and practice associated with the penalization of criminals. From a balance between strict punishment and rehabilitation, which prevailed up to the first decade of the 2000s, the scale is now tipped in favor of the rehabilitative model (Lernau, 2016; Lernau & Oz, 2019). This is evident, among other things, in the fewer numbers of prisoners serving sentences in Israeli prisons and in the shift to rehabilitative alternatives. A number of factors contributed to this change. The Public Committee for Examination of Punitive Policy and Treatment towards Criminals (2015) examined issues of punishment and treatment, and determined that incarceration should be reduced and prioritization given to rehabilitation alternatives. Additionally, in 2012 the Israeli Parliament (Knesset, 2012) passed Amendment 113 to the Israel Penal Law of 1977. This amendment cites treatment and rehabilitation as a significant aim in addressing crime (Lernau, 2016; Lernau & Sharon, 2012).

As in the case of Israel’s criminal justice system, other Western countries acknowledge the preference for rehabilitation over punitive practices. This approach plays a central role for many penologists and scholars of correctional penology, who advocate adopting rehabilitative policies (Butler et al., 2020; Cullen et al., 2020; Garland, 2012). Such a shift in ideology may be explained, at least in part, by empirical and evidence-based studies carried out throughout the world that have demonstrated the effectiveness of rehabilitation programs in reducing recidivism (Andersen & Telle, 2022; Peled-Laskov et al., 2019). In the United States for example, claims that the mass imprisonment system (which contributed to a high rate of incarceration) had reached epidemic proportions (Druker, 2019) led to a search for rehabilitation alternatives as a solution to the problem of crime (Maruna & Ward, 2007).

Public opinion in democratic countries has a profound effect on potential changes in punitive policy (Darley et al., 2000). The adoption of a harsh punitive policy, including use of incarceration and long-term sentences, gains legitimacy during periods in which societies feel threatened by an increase in incidences of crime (Hensley et al., 2007; Mandracchia et al., 2012) or when people feel that crime rates are rising even if there is no objective evidence of this (Lernau & Sharon, 2012). On the other hand, during relatively low-crime periods, existing perceptions regarding penalization may give way to the incorporation of rehabilitative approach, comprising extensive use of remedial measures within the community. An approach that advocates rehabilitation instead of punishment could be justified by the public based on the claim that criminals are driven by biological, psychological, and social forces that are beyond their control (Applegate et al., 1997).

Apart from the attributed and expected influence that public opinion has on punitive policy, the relationship between attitudes and behavior must also be considered (Conner et al., 2021; Kroesen et al., 2017) when examining the potential effect of attitudes on predicting the behavior of those subjected to such opinions (Ajzen & Fishbein, 2005). Advocating punitive action against criminals and expressing reservations regarding their conduct could have implications in terms of behavior towards them. According to research, where importance is attached to social acceptance of released prisoners as part of the process of their desistance from crime (McNeill, 2016), the public is seen as playing an important part in the success or failure of reintegrating prisoners into the community. Negative labelling and a public view of criminals as being incorrigible and predisposed to criminal activity leads to them being treated apprehensively or subjected to alienation (Maruna & LeBel, 2003; Pager, 2003; Pager & Quillian, 2005).

An awareness of the importance of public attitude surveys with regard to appropriate policy towards the punishment of criminals has led researchers in many parts of the world to conduct surveys of these attitudes (Applegate et al., 1997; Gideon & Hsiao, 2012; Gideon & Loveland, 2011; Maruna & King, 2013; Sparks, 2021). Survey content has addressed a range of punitive issues, such as public opinion regarding the severity and aims of punishment (Applegate et al., 1997; Cullen et al., 2000; Einat & Herzog, 2011; Hear & Wheelock, 2016; Sandys & McGarrell, 1994), and the type of punishment (Oswald et al., 2002). Other surveys have dealt with the relationship between attitudes to punishment and sociodemographic variables such as age, gender, religion, profession and education (Applegate et al., 2000; Lalo & Einat, 2011).

Studies that addressed the correlation between public opinion regarding punitive policy and gender (Galleguillos, 2022; Golebiowska, 1999) have found that women are more likely than men to advocate the rehabilitation model over harsh punitive reactions such as long-term incarceration. Age also affects attitude, and research has shown that youth are relatively less supportive of punishing offenders than are their elders (Kuhn, 1993). In terms of the relationship between religious observance and opinions on punishment, those defining themselves as religious are more likely to hold attitudes calling for strict punishment compared to those who define themselves as atheists (Cullen et al. 2000; Gideon & Loveland, 2011). Other researchers have examined attitudes towards punishment held by crime victims (Applegate et al., 2002; Gideon & Sherman, 2014), although no clear-cut findings were obtained.

Other studies have examined factors that could contribute to adopting stricter attitudes towards punishment. Intravia (2019) found that viewing social media content that favors punishment increased support for that alternative. Kjelsberg et al. (2007) analyzed attitudes held by representatives of various law enforcement agencies towards punishment of offenders, and found that they held stricter punitive attitudes compared to individuals who were not employed by law enforcement or correctional agencies.

The relationship between education and attitudes towards punishment of offenders has also been examined in a number of studies. A significant correlation between level of education and attitudes towards punishment was found: The higher the level of education, the greater the support for rehabilitation alternatives (Kuhn, 1993). A possible explanation is that the level of education was found to be in inverse relation to the expression of stereotypical attitudes attributed to criminals (Gideon & Hsiao, 2012; Gideon & Sherman, 2014). The type of education also appears to be influential: Lalo and Einat (2011) compared the attitudes towards punishment of offenders held by students of law and criminology who were reaching the end of their studies and were preparing to enter the job market to those of biomedical engineering students, who were not familiar with the world of crime, punishment and law. They found that the students of law and criminology held attitudes that were significantly less punitive than those of the students of biomedical engineering. This finding indicates a correlation between knowledge and attitude, with the attitude of the criminology students being moderated by their concrete knowledge of the law and their greater exposure to the effects of incarceration than that of their counterparts in other fields.

**Effects of Isolation on Mental State**

 Practitioners and researchers have long observed and documented that social isolation (for instance, solitary confinement) negatively affects physical and mental health (Shalev, 2017).

The COVID-19 pandemic disrupted the lives of most of the world’s population due to the prescribed lockdowns, which led to a deterioration in emotional/mental state on the part of those forced into social isolation. A research study carried out in Italy based on an online survey of 2,291 participants reported a poorer quality of sleep among 57% of the subjects, with about one-third reporting high levels of anxiety, some 42% reporting high distress levels, and approximately 8% reporting post-traumatic stress symptoms (Casagrande et al., 2020).

Many additional studies from other parts of the world that examined the effect of isolation during the pandemic on mental condition report negative outcomes in terms of mental health indices, especially levels of anxiety and depression among young individuals who had been in isolation for extended periods of time. A study conducted in Turkey that examined 754 male and female subjects aged 12 to 18 found that the closure of schools and confinement to the home during the pandemic was associated with a heightened sense of loneliness and higher levels of anxiety. These effects were felt to a much greater extent among the girls as compared to the boys (Kılınçel et al., 2021). Similar findings emerged from research conducted by Zhu et al. (2021), which examined the effect of lockdown on a sample of 992 residents from a total of 23 districts in China. The study found high levels of anxiety among those below the age of 18. In addition, the researchers found a correlation between the level of education of the subjects and their reaction to isolation: Those with lower levels of education reported much higher levels of anxiety, akin to individuals suffering from chronic diseases (Zhu et al., 2021). A descriptive research study that examined the relationship between isolation and mental state among the adult population in Turkey found that adult women and single women were affected to a greater extent than men by the isolation, reporting states of boredom, fatigue, and distress, which are associated with higher levels of anxiety and depression (Yildirim et al., 2021).

A study of 4,335 adults in Germany further affirmed the correlation between isolation and low mental health indices. Benke et al. (2020) found that increased severity of the lockdown, including restrictions on mobility, resulted in limited social contacts, adversely affecting mental health indices: Alienation, anxiety and depression. A study in India that examined 121 children and adults also found a significant statistical correlation between individuals who were in isolation and higher levels of mental distress, feelings of helplessness, fears and exaggerated worry (Saurabh & Ranjan, 2020). Similar findings were reported in a cross-sectional research study of a sample of 1,837 participants carried out by Chen et al. (2021). The study measured the extent of the participants’ anxiety by means of a State-Trait Anxiety Inventory (STAI), comparing the anxiety levels of those who were in isolation with the levels of those who were not in isolation during the lockdown. The results of the study showed that the time spent in isolation had a statistically significant correlation with higher levels of anxiety.

From the above previous research and in correspondence with the current study’s objectives mentioned earlier, it is hypothesized that time spent in isolation, marked by social distancing or severance, and associated with high levels of anxiety, depression, and distress, will influence the level of support expressed by the research subjects for punitive measures (i.e., incarceration and social isolation) or rehabilitation. This is based on the premise that isolation replicates the conditions of incarceration, thereby providing a unique opportunity to examine the affective (emotion) component of attitude and the manner in which it influences support for punishment or rehabilitation. In addition, it is hypothesized that knowledge (cognitive component), will be st

rongly and positively related to attitudes that are supportive of rehabilitation, as knowledge gained through education tends to reduce stereotypes.

**Methods**

**Participants**

The non-probability sample (e.g., volunteer sample) of students was constructed by inviting students to participate in an online survey using Qualtrics software. A total of 238 students of criminology and criminal justice, ages ranged from 18 to 61 years (M=29.7, SD=10.0), participated in the study, although the statistical analysis was conducted for only the 192 students who answered all the survey questions. Specifically, about 19 percent of initial participants (N=46) failed to complete the survey thus limiting their inclusion in the analysis, and thus did not deal with missing values associated with these respondents. We only analyzed those 192 who fully completed the entire survey on all its items.

Given that the intercultural variable in the context of attitudes towards punishment has been subjected to relatively less scrutiny in previous studies, the original research goal was to compare attitudes held by U.S. and Israeli students and examine cultural differences. Although this plan was disrupted by the COVID-19 pandemic, a unique opportunity arose to examine the impact of forced social isolation on the feelings of students (both U.S. and Israeli) and how these feelings influence their attitude towards punishment of offenders.

The majority of the participants (82.3%) were students in academic colleges in Israel. The rest (17.7%) were college students in the United States. Most of the respondents were women (72.3%) and most (both men and women) were single (65.1%). Slightly less than half of the sample (47.4%) were second-year students, and slightly more than one-third (35.2%) were in their first year of studies. The remaining 17.4% were in their final year of studies.

**Tools and Procedures**

 The instrument was modified from its original version (adapted) and was supplemented by additional knowledge questions, tested and validated in previous studies, (see Gideon & Hsiao, 2012; Gideon & Loveland, 2011; Gideon & Sherman, 2014), as well as some demographic questions. The modification was done to reflect findings from more recent studies and to prepare it for use as an online survey (i.e., Qualtrics). In addition, the instrument was approved (adopted) by the Institutional Review Board (IRB) of the first author. The questionnaire, was originally in English and was translated into Hebrew language. The translation to Hebrew was done by the first and second authors, who are both fluent in English and Hebrew, and was examined for both content and cultural context. The questionnaire had four sections: Attitudes towards punishment/ rehabilitation, knowledge, socio-demographics and COVID-19 related questions (feelings, the impact of isolation), as described below:

1. A closed attitudinal questionnaire developed by Wang and Thurstone (1967) due to its focus on examining attitudes towards punishment of offenders, its ability to match the attitudes to the subject of the research, and its capacity for examining correlations and/or impacts in terms of attitudes towards punishment of offenders and a range of research variables, as well as correlations between the variables themselves (Roberts & Stalans, 1998). The questionnaire included a total of 31 items addressing the aims of criminal punishment, the necessity for resorting to it and its justification. The questionnaire also included statements, such as: “Where possible, serving an active prison term should be avoided” (suggesting rehabilitation as an alternative); or “No mercy or leniency should be shown for a prisoner convicted by law” (suggesting commensurate punishment as an alternative). In the present research we focused on the pro-rehabilitation attitudes of the respondents (the inverse of pro-punishment). Respondents rated each of the 31 items in the attitudinal questionnaire on a Likert scale ranging from “strongly disagree” (1) to “strongly agree” (6). The punitive attitude index was calculated using the aggregation of answers representing the overall trend in the attitude of the participant to rehabilitation. The rehabilitation index ranged from a minimum value of 31 to a maximum value of 186. The Wang and Thurstone (1967) questionnaire was found to be structurally valid and to have a high level of reliability of 0.69-0.76 (Zalency & Kirsch, 1989). The questionnaire was found to have a higher level of reliability in the framework of the present research (Cronbach’s alpha = 0.872). As such, no data-reduction procedure, such as confirmatory factor analysis (CFA), or exploratory factor analysis (EFA) were needed.

2. In order to gain insight into the component of knowledge and its effect on attitudes towards punishment, subjects were requested to state whether some 20 claims in connection with convicted felons were correct or not (Gideon & Sherman, 2014). These included, for example: “All convicted criminals are dangerous people,” and “All convicted criminals are violent.” The questions examined participants’ knowledge, assuming that they had acquired some level of knowledge in the field of criminology (in subjects related to law, punishment and reasons for criminal activity) and from stereotypical concepts.

3. In addition, self-report sociodemographic questions were used. Specifically, questions about gender, marital status, number of children, age, nationality, religion, religious observance, and area of their academic studies.

4. The final section included questions regarding the COVID-19 lockdown. Questions on location during the lockdown and related emotions served as an index for examining the affective (feeling) component of attitude and included content such as: “How much time did you spend in isolation?”; “How did isolation affect you?”; “What emotions did you experience during isolation?”; “To what extent did the experience of isolation influence your attitude towards incarceration of criminals?”

Data collection was carried out by means of an online survey during July–August 2020. Since the study aimed to examine the effects of isolation due to the COVID pandemic and was conducted during that period of time, data collection took place during the height of the COVID pandemic were institutions of higher education turned to remote teaching we had to rely on an online survey methodology such as the one used--Qualtrics. The students were invited to participate in the online survey using Qualtrics software. The invitation, with an attached link to the survey, was sent via email and online learning systems to students taking courses in the field of criminal justice and criminology in institutions where the researchers themselves taught. These were a mixture of public and private colleges in various geographical locations in Israel and the United States. Over 300 invitations were sent. The relatively low number of responses was associated with the period in which the survey was to be carried out, namely, the COVID-19 pandemic, typified by a decrease in academic activity among students in general, and U.S. students in particular.

Prior to students’ participation, IRB approval was obtained. In addition, each student was presented with the aims of the study in the form of computerized study explanation sheet, detailing the aim of the study, asking for their voluntary participation, and once read and agreed to the terms of the study, asked to acknowledge their agreement.

**Statistical Analysis Procedure**

A basic descriptive analysis was conducted to capture the characteristics of the sample in terms of their exposure to isolation, and also to examine the differences between Israeli and American students regarding their emotional response to isolation. Such analysis was followed by a multiple regression analyses. Specifically, to in an attempt to examine the effect of isolation as proxy to the feeling/ affective component, along with other factors such as knowledge component, gender, age, marital status and country, we used Hierarchical Regression to examine the rehabilitative attitudes. Hierarchical Regression models are suitable to examine the contribution of previously known predictors (e.g., age, gender, marital status, and knowledge), while adding new predictors that were not examined in previous studies, in a specific order. The order in which the predictors were added in models 2 and 3 (Table 1), were determined according to the theoretical explanation presented earlier in this paper, according to which attitudes are determined by knowledge and feeling/ affective components. This is a methodological theory that guides public opinion studies (Hornik, 1988). Specifically, the models, in Table 1, examine the rationale by which exposure to forced isolation due to the COVID pandemic is associated with support of rehabilitation and less support for incarceration and isolation as punishment. Using this approach, we aimed to obtain a more nested-structure as the factor/ predictors from the first model will become nested within the more complex models presented in the second and third models of the analyses, allowing us to improve our ability to explain the variance of our dependent variable—rehabilitative attitudes—by the independent predictors examined in each of the three models analyzed. We discuss these models in more detail in the findings section.

**Findings**

More than one-fifth of the sample (23.5%) reported that they had been in isolation at home during the lockdown for periods ranging from nine weeks to more than 12 weeks; 17.2% reported spending time ranging from five to eight weeks in isolation; and 36.7% reported shorter periods of isolation, ranging from one week to one month. Only 22.5% reported isolation of less than one week. In this context, it is important to note that more than half of the respondents (55.8%) stated that the forced isolation at home during the pandemic had affected their mental state. Yet, the effects of the forced isolation did not result in a major change in attitude towards sentences of incarceration. Specifically, a total of 23.5% of the respondents reported that the experience of isolation caused them to change their view on house arrest, and 13.5% stated that isolation led them to change their minds regarding imprisonment.

The effects of social isolation on respondents went beyond simply mental well-being, as previously discussed. Specifically, 86% of the respondents reported that social isolation had affected them to a “great”/ “very great” extent in one the following categories: about 28% reported experiencing loneliness, 22% reported feeling melancholy and helplessness, 19% reported feelings of anxiety, and about 17% reported feelings of depression. Significant differences were found between the Israeli and U.S. students in all matters concerning the reported effects of isolation on mental states (the affective component), including anxiety, loneliness, depression, and melancholy. The findings are presented in Figure 1.

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It may be seen from Figure 1 that isolation had a more negative effect on U.S. students, with the majority reporting feelings of anxiety and loneliness. Half the U.S. students reported depression and melancholy (statistically significant differences) and somewhat less than half reported hopelessness. Among the Israeli students, about one-quarter reported feelings of loneliness (27.2%), hopelessness (24.1%) and melancholy (22.8%). About 15% of the surveyed Israeli students reported anxiety (14.6%) and depression (15.2%). In both the groups, a low percentage reported feelings of calmness and hope, with no significant difference between them.

As stated, the level of punitiveness was measured by means of the attitudinal questionnaire developed by Wang and Thurstone (1967). In the present study, we focused on the pro-rehabilitation attitudes of the respondents (the inverse of pro-punishment). The punitive attitude index was calculated using the aggregation of answers representing the overall trend in the attitude of the participant to rehabilitation. The rehabilitation index ranged from a minimum value of 31 to a maximum value of 186, and was found to be highly reliable (Cronbach’s alpha = 0.872). As in the case of punitiveness, the rehabilitation attitude level in the present sample was found to be average to high (mean = 118.30, standard deviation = 17.32). These findings indicated that, in general, the participants in the present research tended to support rehabilitation. Assuming equal variance (F(33,157)=1.02 , p=.313), significant differences were found between the Israeli and U.S. students, with the U.S. students exhibiting a higher level of pro-rehabilitation attitudes than the Israeli students (t(190) = 4.15; p < 0.001), a finding that is also supported by the multivariable models presented below. An additional significant difference in the extent of punitiveness was found in the multivariable model between the genders, with the women exhibiting pro-rehabilitative attitudes to a greater extent than the men. In this context, it should be noted that no statistically significant differences were found between the level of knowledge of the Israeli and U.S. students (knowledge component).

In the next step of the analysis we used Hierarchical linear regression modelling to determine the effect of isolation/lockdown on students’ attitudes towards rehabilitation of convicted offenders, as explained earlier in the methods section, under tools and procedures. A three-step process was followed. In the first regression model we examined the effect of age, gender, marital status, group (Israeli/ U.S.) and knowledge of the students on attitudes towards rehabilitation. In the second model we include, the effect of isolation and distancing on the general mental state of the respondents and in the third model a variable that examined the effect of isolation and lockdown on attitudes towards incarceration, was added.

In the first step (Model 1) it was found that the older students displayed pro-rehabilitation attitudes to a greater extent than did younger students. In addition, the regression findings in this model point to the fact that the men were less likely to hold pro-rehabilitation attitudes than were the women. It was also found that the U.S. students held less punitive attitudes compared to the Israeli students. The knowledge component was also found to be a predictor of statistical significance, with knowledge positively correlated to rehabilitative attitudes: The higher the level of knowledge, the greater the support for rehabilitation.

The findings of the second regression attest to the fact that respondents who reported being affected mentally by the isolation and distancing showed higher levels of support for rehabilitation. This finding reinforces the hypothesis regarding the importance of the affective component in determining attitude.

In the third model, it was found that students who stated that the isolation/lockdown had influenced their attitudes towards incarceration reported pro-rehabilitation (less punitive) attitudes to a greater extent than did students who reported that isolation/lockdown did not have an impact on their attitudes towards incarceration (reference group).

Findings of the three regression models presented in Table 1.

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**Discussion**

COVID-19 left its mark on the entire world, forcing millions to experience social severance and isolation for varying periods of time. The pandemic offered an opportunity to conduct a natural experiment, testing the effects of social isolation on attitudes towards punishment and rehabilitation of criminals. The conditions forced on individuals provided a basis for examining the affective component of attitudes, according to which people express their opinion in light of their own experience of isolation and social isolation. The goal of the present research was to examine whether the affective (feeling) component, in the context of social distancing and isolation, contributed to increased support of rehabilitation and diminished support of punitive incarceration.

The results of this research, like those of many previous studies (Benke et al., 2020; Casagrande et al., 2020; Kılınçel et al., 2020; Yildirim et al., 2021; Zhu et al., 2021) found that isolation had an adverse effect on individuals’ mental state. Most of the respondents in the present study, Israeli and U.S. alike, reported that social isolation affected them to a “great” or to “very great” extent. About one-quarter of the respondents reported feelings of loneliness, melancholy and hopelessness; about one-fifth reported anxiety or depression.

The findings support the hypothesis of a correlation between the affective (feeling) component and attitude. Specifically, the findings of the multivariable regression point to the fact that the students who reported being affected by the isolation and distancing tended more towards supporting rehabilitation and less towards supporting incarceration. In this context, it may be said that the time spent in isolation exposed the respondents to feelings that are experienced by prisoners and detainees in general, and to the pains of imprisonment in particular. It is possible that these feelings contributed to their adopting pro-rehabilitation attitudes.

The knowledge component was also found to be positively correlated with pro-rehabilitation attitudes, such that respondents with a greater knowledge of the field of law, punishment, and reasons for criminal activity tended more to be in favor of rehabilitation than those who exhibited less knowledge of that field. This finding is in line with previous studies conducted in other parts of the world that examined the effect of the knowledge component on support for punitive measures and/or rehabilitation (Gideon & Hsiao, 2012; Gideon & Loveland, 2011; Gideon & Sherman, 2014).

 In models tested by means of the regression equations, it was found that among the Israeli students, there were significantly less pro-rehabilitation attitudes as compared with the U.S. students. In addition, the findings of this regression analysis, unlike those of previous studies (Kuhn, 1993), attest to the fact that the older students tended to be more pro-rehabilitation than the younger students. It is possible that this finding is associated with the fact that the older students were more knowledgeable, making them less pro-punishment.

The findings of the present research offer a new perspective for examining the formulation of opinions in general, and that of opinions relating to rehabilitation vs. punishment in particular. Individuals who exhibit knowledge in the field of law, penalization, and the reasons for criminal activity tend to be less pro-punishment and more pro-rehabilitation owing to their ability to understand the factors involved in lawbreaking and the importance of rehabilitation over punishment. In addition, those who have experienced the pain of being “essentially imprisoned in one’s home” can be seen to have developed an empathy for a person sentenced to incarceration, with the attendant restrictions involving exclusion from society. Such insights could create more support for rehabilitation, with its focus on the integration of lawbreakers into normative society.

This research highlighted the importance of the knowledge and affective (feeling) components on attitudes towards the rehabilitation of offenders, and its findings indicate that pro-rehabilitation attitudes derive from both knowledge and feeling. These components can influence not only the attitudes themselves but also behavior towards offenders who are undergoing rehabilitation. The ability on the part of the public to recognize the challenges that prisoners face enables them to accept the prisoners back into society, while acknowledging rehabilitation as an essential step in achieving a long-term change in the offender (McNeill, 2016).

Another interesting finding emerging from the statistical analyses and regression equations attests to the fact that the lockdown experience was more difficult for the U.S. students than the Israeli students (Figure 1), with significant statistical differences being found between the groups with respect to emotions such as melancholy, loneliness, anxiety and depression–characteristics that typify the effects associated with imprisonment. It is entirely possible that these emotions intensified empathy among the U.S. students, causing them to express greater support for rehabilitation and to reject the idea of incarceration. Another potential explanation for the findings showing higher support for rehabilitation on the part of the U.S. students compared to the Israeli students relates to rehabilitation policy in Israel. Many Israelis see this as being excessively lenient at times and this has reduced public confidence in the country’s criminal justice system. The strict policy in the United States – mandatory minimum sentences and the abolishment of parole, manifested in harsh prison sentences and mass incarceration–has resulted in a lack of faith among the U.S. public in the possibility of deterrence inherent in a punitive approach.

From the above findings, it is clear that measuring attitudes must take account of both knowledge and feeling/ affective components. Measuring attiudes and opinions are associated with the development of policies, and in the case of the current study, punitive and rehabilitative policies that are social reactions to law breakers. As such the implication and policy that stem from the present study calls for more responsible adoption of public attitudes and public opinion surveys that are being taken into consideration when considering social reaction policy revisions to current punitive policies. Specifically, the current study raises the importance of understanding the limitations of public opinion and public attitude surveys, while offering a more holistic approach to how we can better, and more accurately, measure the opinions and attitudes of citizens.

**Limitations of the Research and Further Study**

As the present research rests on a non-probability sample of criminology and criminal justice students who volunteered to participate in the study, the results of the research do not necessarily encompass the entire student population studying for a bachelor’s degree in criminal justice and/or criminology, and as such does not allow any generalization. It is also worth noticing that the overall level of measured level of knowledge pertaining to sentencing, punishment and rehabilitation is not representative of the entire student population. It is further important to emphasize that the research was conducted during the COVID-19 pandemic, which also influenced the low rate of response to the survey. This is in light of the fact that many students who spent time in isolation experienced feelings of languor and loneliness. Further, the unbalanced group of Israeli students may have swayed the results of the study as previously discussed. As this study was based on a voluntary participation, we were unable to achieve a matched number of American students. We hope that future studies will attempt to achieve a more representative and equal number of participants to allow a more balanced analysis.

In addition, every study that is descriptive in nature is limited with respect to the inner validity of its findings. For example, in the finding relating the experience of isolation with the tendency towards a pro-rehabilitation attitude, it is possible that the participants were relatively more sensitive to start with. This limitation is associated with the fact that it is not possible at the outset to determine with conviction that the comparative groups possess identical characteristics. In order to reduce this threat variables in the different models, such as age, gender and marital status, were controlled owing to their potential impact on the variable being measured, namely, pro-punishment and pro-rehabilitation attitudes towards offenders.

Nevertheless, the present research provides a unique insight into the possible contribution of the affective component on the determination of attitudes in general, and attitudes towards rehabilitation and punishment in particular. In addition, it examines the relationship between the affective (feeling) and knowledge components and pro-rehabilitation attitudes. Future studies will be required to expand the examination of these components and their effect on attitudes in order to gain a better understanding of the factors that influence attitudes and, in turn, to formulate public opinion and policy supporting rehabilitation of criminals.

**Conclusion**

 The study hypotheses aimed to examine the connection between isolation, as a proxy of the feeling/ affective component, and support of rehabilitation, and the connection of the knowledge component to support of rehabilitation. Both hypotheses received support in this study as demonstrated in our hierarchical regression. Specifically, the results of the study support the importance of the feeling/ affective component in measuring attitudes, and thus the connection of this important factor to attitudes favorable of rehabilitation over incarceration and isolation. As argued previously in the current study, respondents experienced many emotions that are similar to those experienced by incarcerated individuals (i.e., anxiety, loneliness, depression and melancholy), in what is known in the literature as “pains of imprisonment”. As for the knowledge component, the result of the current study add support to findings from previous studies demonstrating that level of knowledge is positively related to support of rehabilitative attitudes and negatively related to support of punitive policies. Specifically, respondents with higher level of concrete knowledge about the issues pertaining to criminal justice and sentencing tend to be less punitive. The affirmation of both hypotheses provide further support to the importance of measuring both knowledge and feeling/affective componenet when aiming to examine attitudes and opinions that may impact policy, and in the case of the current study, policies regarding social reaction to convicted offenders.

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**Figure 1**

*Emotional Differences in the Wake of Isolation – Comparison of Israeli and U.S. Students*

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\*\*\* p > 0.01; \*\* p > 0.05; Statistical significance was tested following Bonferroni correction for multiple comparisons

**Table 1**

*Hierarchical Regression for Examining Rehabilitative Attitudes*

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Model 1** | **Model 2** | **Model 3** |
|  | *B (SE)* | *β* | *B (SE)* | *β* | *B (SE)* | *β* |
| Constant | 66.31\*\* |  | 67.55\*\* |  | 65.34\*\* |  |
| Age | 0.47 (0.15) | 0.28\*\* | 0.42 (0.15) | 0.24\*\* | 0.43 (0.15) | 0.25\*\* |
| Gender (reference group – women)  | --5.64 (2.81) | -0.15\* | -5.72 (2.77) | -0.15\* | -5.11 (2.76) | -0.13\* |
| Marital status (reference group – married)  | 2.84 (2.94) | 0.08 | 1.83 (2.93) | 0.05 | 2.04 (2.90) | 0.06 |
| Group (reference group – Israeli)  | 16.08 (3.26) | 0.36\*\* | 14.89 (3.25) | 0.33\*\* | 15.13 (3.22) | 0.34\*\* |
| Knowledge | 2.81 (0.86) | 0.22\*\* | 2.84 (0.85) | 0.23\*\* | 2.65 (0.84) | 0.21\*\* |
| Effect of isolation and lockdown (reference group – no effect) | – | – | 6.22 (2.48) | 0.17\* | 5.57 (2.48) | 0.15\* |
| Effect of isolation and lockdown on attitude towards incarceration/ detention (reference group – no change) | – | – | \_ | \_ | 8.63 (3.96) | 0.15\* |
| *R2* | 0.17 | 0.20 | 0.22 |
| ***F for change in R2*** | 7.41P = 0.001 | 6.26P = 0.013 | 4.75P = 0.031 |
| ***Model significance*** | P < 0.001 | P < 0.001 | P < 0.001 |

\*\* P > 0.01; \* P > 0.05