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Impacts of Exclusion on the Disabled Population

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Abstract: Although explicit prejudice has declined in the modern era, implicit prejudice has only increased. Past research indicates that implicit prejudice leads to an increase in social exclusion, which in turn leads to lower mental well-beings. As disability rates have been increasing worldwide, it is important to explore potential issues experienced by those disabled individuals. To what extent does people with physical disabilities, those more vulnerable to consequences of implicit prejudice, perceive increased social exclusion? How much does the impact on mental well-being, or more specifically personal optimism and self-efficacy, brought by social exclusion on the disabled group compare with people without disabilities? Participants will be surveyed on a daily basis about their perceived social exclusion and their personal optimism/self-efficacy. Results will then be analyzed and graphed to 1) compare levels of reported perceived social exclusion between the disabled and non-disabled group, 2) compare the strength of correlation between perceived social exclusion and self-efficacy optimism between the disabled and non-disabled group, and 3) compare the strength of correlation between perceived social exclusion and personal optimism between the disabled and non-disabled group. Results are expected to demonstrate a significant higher amount of perceived exclusion for the disabled group, a stronger negative correlation between perceived social exclusion and self-efficacy optimism as well as between perceived social exclusion and personal optimism for the disabled group. Such findings indicate that the disabled population generally perceives more social exclusion, and such perceived exclusions contribute to greater levels of decreased mental well beings for disabled individuals in the optimism aspect.

Keywords: disability, optimism, self-efficacy, social exclusion, mental well-being

1. Introduction

Although explicit prejudice has declined in recent years, implicit prejudice, which causes unconscious stereotyping and social exclusion, continues [1]. As disability rates increase worldwide, investigation on potential obstacles in the life of those with disabilities becomes crucial [2]. According to the World Health Organization, as of March 7, 2023, 16% of the population worldwide experience significant disability [2]. Disability predicts vulnerability to prejudice. For instance, as defined by disability expert Fiona Campell, the term ‘ableism’ was coined in the 1980s to represent “a network of beliefs, processes and practices that produce a particular kind of self and body (the corporeal standard) that is projected as the perfect, species-typical and therefore essential and fully human. Disability, then, is cast as a diminished state of being human” [3]. The origins of ableism are centered around false-

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beliefs and the just-world phenomenon (i.e. people deserve their disability). In the past decades, disability wasn't even treated as a medical condition, but instead, regarded in terms of "sin, karma, or divine punishment" [4]. A study done by the Council on Quality and Leadership found that a majority of people were unconsciously prejudiced against people with disabilities [5]. The challenges faced by people with disabilities continue. Compared to normal persons, they are at twice the risk of developing conditions such as "depression, asthma, diabetes, stroke, obesity or poor oral health" [2]. They also face various inequalities, including health and economic ones [2]. Those disabled are also among the marginalized parts of society. Marginalization in turn causes them to perceive discrimination and exclusion from the rest of the world [6].

Humans are social animals. As humanistic psychologist Abraham Maslow proposed, humans have a need to belong [7]. Thus, intuitively speaking, being excluded and left out from social relations could induce severe damages to one's mental well-being. Indeed, social exclusion has been found to be a factor contributing to a list of problems, including depression, anxiety, poor sleeping quality, loneliness, cognitive decline, and memory problems [8]. Past work on social exclusion has focused on the minority groups, namely immigrants or those with mental illnesses. For instance, among African immigrants in the US, social exclusion correlates with increased symptoms of depression and anxiety, decreased trust in one's social group, increased subjective isolation, and increased worrisome thoughts regarding one's safety [9]. In the UK, mentally ill patients are among the most vulnerable groups to social exclusion. They are excluded from a variety of necessities, including material resources, healthcare services, social activities as well as social relations [10].

The present research focuses exclusively on the disabled population regarding social exclusion and mental well-being in the aspects of personal optimism and self-efficacy optimism. These two aspects are explicitly selected from the general field of mental well-being as in an intuitive sense, when people are constantly excluded or ignored, their optimism tends to decline - since they will experience more worrisome thoughts about being excluded again in the future. Moreover, optimism plays an important role in cognitive performance. Optimism is an indicator of better stress managing skills and positive thinking, and it may also lead to increased motivation for one to put forth more effort on challenging tasks [11]. In addition, optimism plays a role in longevity. Research has shown that optimism relates specifically to 11-15% longer life span on average [12]. Thus, studying impacts of exclusion on disabled individuals' optimism is essential as optimism plays a huge role in areas of life. As past research has indicated that disabled groups receive more social exclusion, the present research aims to explore the intensity and frequency of perceived exclusion in people with disabilities. In addition, the present research intends to measure and compare the harms brought by exclusion among people with and without disabilities on their personal and self-efficacy optimism. As supported by past work, disabled people are expected to perceive more exclusion compared with those not disabled. And, since those with disabilities generally experience and perceive more social exclusion, it is predicted that they will be more sensitive to such incidents, thereby experiencing more severe impacts of exclusion, lowering their personal optimism and self-efficacy. The negative correlation between social exclusion and personal/self-efficacy optimism is predicted to be stronger for disabled people than non-disabled people. That is, higher social exclusion is a better predictor for lower mental well beings for the disabled group. An alternative explanation for consequences of constant exposure to social exclusion is that such individuals will habituate, and become resilient to the situation. However, resilience does not occur in the majority of individuals. The Cigna Resilience Index, one of the largest studies of resilience in the United States, finds that only 37% of full time workers in America are considered to have high resilience [13]. Among young adults in the age range 18-23, only 22% are considered to have high resilience [13]. Moreover, social exclusion makes one more vulnerable to mental health issues. Hence, as the disabled population receive more exclusion, they are at a higher risk of developing mental disorders. And, as mental issues such as depression and

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anxiety often involve self-defeating attitudes, patients of such disorders are very likely to be more sensitive to social exclusion, magnifying its consequences. Findings of the present study are aimed to stress the vicious consequences brought by exclusion for the disabled population and provide a more thorough examination in challenges faced by disabled individuals.

The present longitudinal and correlational study uses experience sampling to explore and compare the relationship between disability, social exclusion, and mental well being. Experience sampling is best suitable for the present work: it is able to measure the participants' day to day experiences of exclusion better with fewer recall biases possibly influencing the outcome, as experience sampling requires the participants to fill out forms more frequently. Over time, more subtle changes can be detected. Based on past research, results are expected to demonstrate a significant difference in perceived social exclusion between the disabled and non-disabled group, with the disabled group perceiving higher amounts of social exclusion, a stronger negative correlation in perceived social exclusion and self-efficacy optimism as well as between perceived social exclusion and personal optimism for the disabled group compared with the non-disabled group. Half of the participants will be recruited from special disability hospitals, and the other half will be randomly selected from the general population. Participants will be filling out surveys assessing social exclusion and optimism three times per day for two weeks. Results will be analyzed, compared and graphed to explore differences between the disabled and non-disabled individuals in their level of perceived exclusion and correlation between perceived exclusion and personal optimism as well as self-efficacy optimism.

2. Method

All measures, manipulations, and exclusions will be reported. This study will be approved by and carried out in accordance with the recommendations of the Institutional Review Board for human participants with written informed consent obtained from all participants.

Participants. 250 individuals will be recruited for participation in exchange for 210$ for all entries over the two-week interval, with 21 entries per week. We hope to achieve a sample size of at least 250. We performed two power analyses using the software package G*Power [14]. The results indicated that around 134 individuals will be needed to produce an effect size of 0.3 for correlation graphs, and at least 210 individuals will be needed to produce an effect size of 0.5 for the T-test. We decided to recruit 250 individuals to ensure that at least 210 effective responses will be collected. See Figure 1 (correlation) and Figure 2 (T-test) for the power analyses. As the study will be conducted in China, most, if not all, participants will be Chinese. Half of the participants will be recruited from special disability centers/hospitals in China, and the other half will be recruited from the general population in correspondence to gender and age makeup of disabled participants.

Design and procedure. This study will be a longitudinal correlational study. In the study, participants will complete 10-minute surveys daily on consisting scales for social exclusion and mental well being. Participants are going to be filling out the form three times per day, each between the time intervals of 8AM-12PM, 12PM-17PM, and 17PM-24AM. Any entries submitted after according time intervals will be disregarded. Microsoft forms will be used to collect responses from the participants, and the links to the forms will be sent to their email. Experience sampling is used in order to measure more accurate data on day to day exclusion/stereotypes as participants "live their life".

Surveys will be composed of several self-report measures assessing mental well-being, social exclusion, and perceived stereotypes.

Measures. Surveys that participants will be completing includes a shortened version of the POSO-E that focuses on personal and self-efficacy optimism and the social exclusion scale developed by Jehoel-Gijsbers and Vrooman [15,16].

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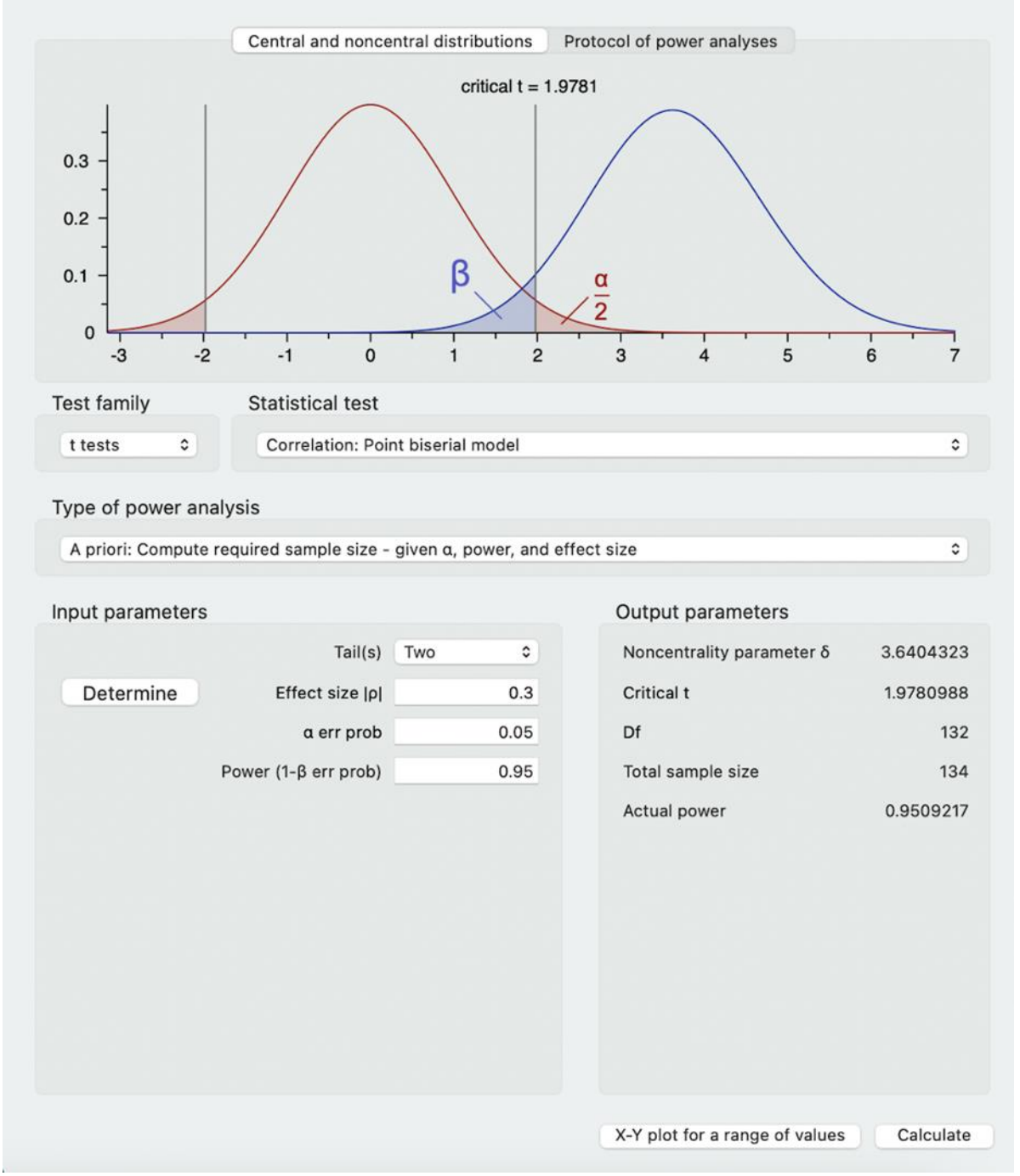

Figure 1: Power analysis for Pearson r correlation tests.

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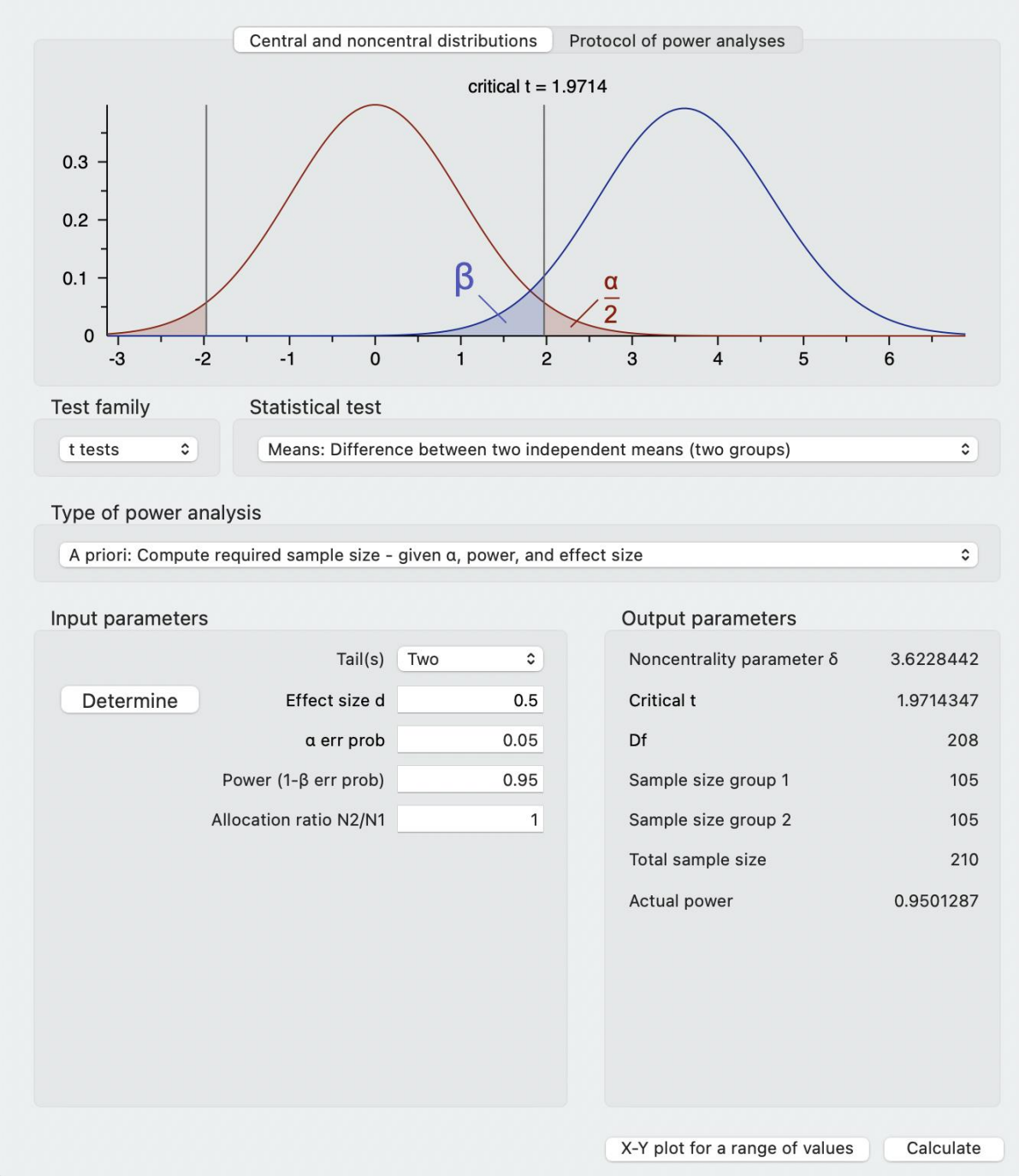

Figure 2: Power analysis for two variable t-test.

The social exclusion scale measures on two aspects of social exclusion - economic/structural exclusion and socio-cultural exclusion. The first measures social exclusion on a distributional (of materials, resources, etc.) dimension, whereas the second measures social exclusion on a relational dimension. Both dimensions are needed to measure social exclusion for the disabled people as they are not only vulnerable to exclusion in social activities, but also subject to exclusion of material resources. Items in the scale are demonstrated in the Appendix.

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The shortened version of the POSO-E scale includes nine items measuring personal and self-efficacy optimism. The 9-item Version of the Personal Optimism and Self-Efficacy Optimism Scales can be found in the appendix.

Data Analytic Approach. Our primary hypothesis involved assessing perceived social exclusion and two aspects of mental well-being. Data will be analyzed using SPSS. Four correlational graphs will be produced and a T-test will be conducted. The T-test will be used to compare perceived social exclusion between the disabled and non-disabled groups. The four correlational graphs compare perceived social exclusion against self-efficacy optimism for the disabled group, perceived social exclusion against self-efficacy optimism for the non-disabled group, perceived social exclusion against personal optimism for the disabled group, and perceived social exclusion for the non-disabled group, respectively.

3. Results

Descriptive statistics.

Aim 1. We expect to find a significant difference between perceived exclusion between the disabled and non-disabled groups. Specifically, as illustrated in Table 1, we predict that the disabled group will perceive higher levels of exclusion.Any text or material outside the aforementioned margins will not be printed.

Table 1: Illustration of hypothesized effects. The experimental and control groups correspond to disabled and non-disabled groups in this study. The p value illustrated is less than 0.05, meaning that the results are not due to chance. Thus, with 2.55 as the t value, the conclusion that there is a significant difference between the two groups could be made [17].

Groups	x	N	S	t	SD	P(significance)*
Experimental	15.83	30	3.09	2.55	58	0.01
Control	17.87	30	3.08			

p*<0.05

For the present study, the values will be different from that of Table 1, but the general conclusions can be made in the same way. The p value in the figure is less than 0.05, meaning that the results are not likely due to chance. Thus, with the t value being 2.55, we can conclude that there is a significant difference between the two groups.

Aim 2. We expect to find a stronger negative correlation between perceived exclusion and self-efficacy optimism for the disabled group. Specifically, as illustrated in Figure 3 and Figure 4, we predict that social exclusion will be a better indicator for lower reports on self-efficacy optimism for the disabled group.

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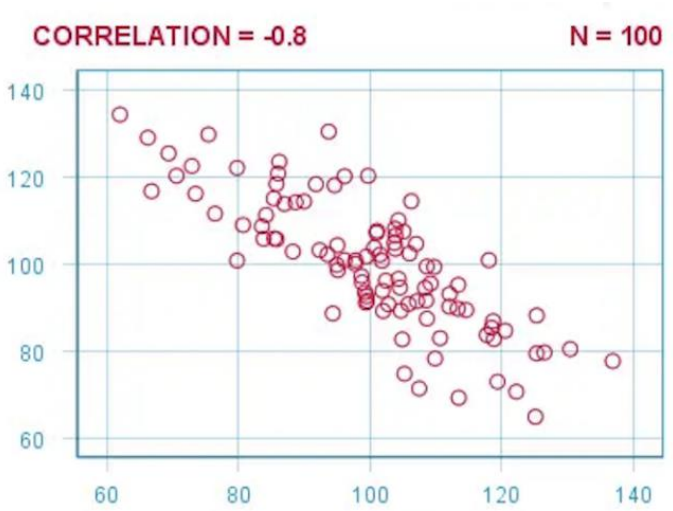

Figure 3: Illustrated results for Pearson r correlation test for the disabled group on self-efficacy optimism and social exclusion [18].

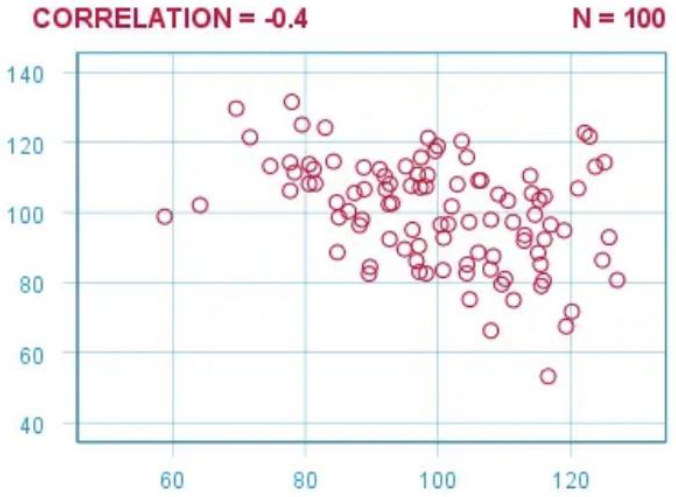

Figure 4. Illustrated results for Pearson r correlation test for the non-disabled group on self-efficacy optimism and social exclusion [18].

Figure 3 is a Pearson r correlation graph of perceived social exclusion (x-axis) and self-efficacy optimism (y-axis) for the disabled group. Figure 4 graphs perceived social exclusion (x-axis) against self-efficacy optimism (y-axis) for the non-disabled group.

Aim 3. We expect to find a stronger negative correlation between perceived exclusion and personal optimism for the disabled group. Specifically, as illustrated in Figure 5.1 and Figure 5.2, we predict that social exclusion will be a better indicator for lower reports on personal optimism for the disabled group.

Figure 5 is a Pearson r correlation graph of perceived social exclusion (x-axis) and personal optimism (y-axis) for the disabled group. Figure 6 graphs perceived social exclusion (x-axis) against personal optimism (y-axis) for the non-disabled group.

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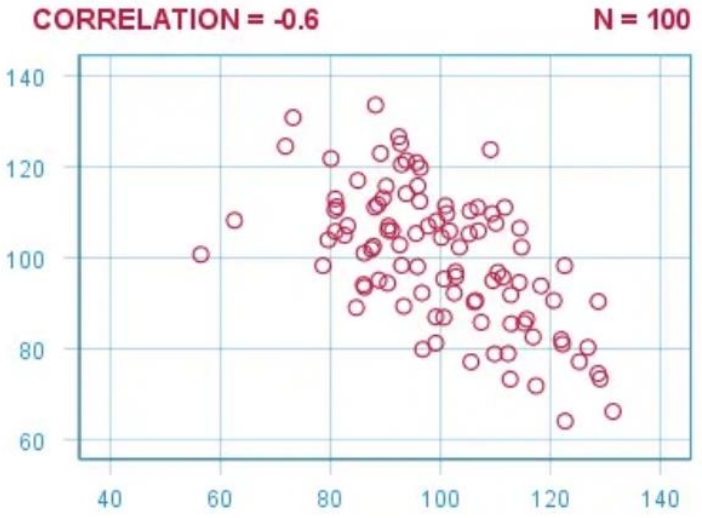

Figure 5: Illustrated results for Pearson r correlation test for the disabled group on personal optimism and social exclusion [18].

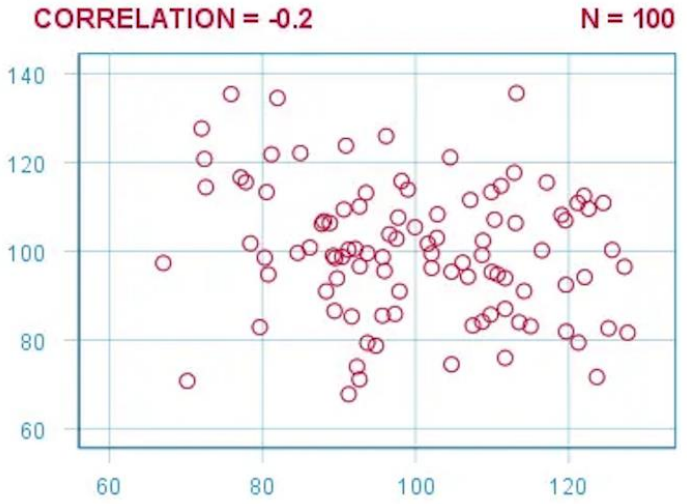

Figure 6. Illustrated results for Pearson r correlation test for the non-disabled group on personal optimism and social exclusion [18].

4. Conclusion

The present study aims to provide an in-depth examination on the challenges experienced by disabled individuals, more specifically ones brought by social exclusion. Participants will be asked to complete surveys including social exclusion and optimism scales. Findings are expected to demonstrate 1) significant higher reports on perceived exclusion for the disabled group, 2) a stronger negative correlation for perceived exclusion and self-efficacy optimism for the disabled group, and 3) a stronger negative correlation for perceived exclusion and personal optimism for the disabled group. Such findings are significant in demonstrating the sensitivity of disabled individuals as they perceive constant exclusion from society. However, the findings of the present study are very limited in generalizability. Because all participants were recruited from China, findings will not be able to be generalized to individuals in other nations. Further, because the disabled participants are recruited from special disability centers instead of randomly selected in China, findings regarding the disabled

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individuals will not be able to be generalized to other disabled individuals. Findings from the non-disabled group (Figure 3.2 and Figure 4.2) can still be generalized to the Chinese population as those participants were randomly selected from China.

Alternative interpretations for the present work do exist. Disability alone could predict low self-efficacy optimism, as being disabled means being limited on abilities and the inability to perform certain tasks. Thus, the role of social exclusion may not be as strong as predicted in the results section. However, this interpretation does not suggest that the findings are insignificant, as the disabled individuals may still be perceiving more exclusion which contributes to lower mental well-being. This interpretation only suggests that there may be an overestimation of the role of social exclusion in lower reports on optimism scales. Another alternative interpretation involves post-traumatic growth. A significant number of disabled individuals had their disabilities caused by life-changing accidents, and "the risk of disability increased with accident frequency" [19]. Going through such life-changing incidents may result in post-traumatic growth, where individuals experience a positive psychological growth after a major life-changing incident. This would explain why, if the result doesn't demonstrate a stronger negative correlation for the disabled group, disabled individuals don't get more sensitive to social exclusion. Since they've already gone through such traumatic events that caused their disability, they may expect everything else later in their life to get better, or 'can't get even worse' than the life-changing event.

Based on expected results, future research could be centered on two main questions. How could implicit bias towards disabled people be lowered? Do disability programs designed to foster inclusion raise optimism for disabled individuals? Both questions can be researched using an experimental study design. Future research could focus on implementing real world programs designed to help alleviate the challenges faced by disabled individuals.

In essence, the present research examines the conditions of disabled individuals and expects the result of the finding to show that the disabled population generally perceives more social exclusion, and that perceived exclusion has a greater impact on their personal and self-efficacy optimisms.

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Appendix

Social Exclusion Scale [16]

Dimension 1: Material deprivation

1. payment of fixed expenditures is very hard
2. Has payment arrears
3. Worries often/continuously about financial situation
4. Has difficulty in making ends meet
5. Finds it more difficult to make ends meet than 2 years ago
6. Lacks consumer durables due to financial deficits
7. Cannot afford basic expenditures
8. Membership of (sports) club is too expensive
9. Has difficulties in obtaining a loan

Dimension 2a: Social rights: access to institutions and provisions

1. Often treated badly by public agencies
2. Often long waiting periods for appointments/treatments at public agencies
3. Often problems with public agencies
4. Refused by commercial service organizations (banks, insurance companies etc.)
5. Benefit (according to respondent) wrongfully refused or terminated

Dimension 2b: Social rights: access to adequate housing and safe environment

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1. Frequent disturbances in neighborhood
2. Wants to move house within 2 years
3. Had/expects a long search period in finding a new house
4. Litter social cohesion in neighborhood
5. Unsafe feeling in neighborhood
6. Unsafe feeling if one is home alone
7. Often a victim of crime over the last 5 years

Dimension 3: Social participation

1. Feels left out of society
2. Does not/hardly go out for amusement
3. Experiences lack of social contacts
4. Has no/little people to discuss intimate matters
5. Has little social support
6. No/little membership of clubs, societies
7. No/little diversity in social contacts
8. Social contacts hampered by health

Dimension 4: Cultural/normative integration

1. A false testimony is allowed if a friend faces trial
2. Trespassing the law is no problem as long as one does not get caught
3. People with a payed job may moonlight for up to 150 euro a month
4. People on social assistance may moonlight for up to 150 euro a month

The 9-item Version of the Personal Optimism and Self-Efficacy Optimism Scales [15]

1. For each problem I will find a solution.
2. In difficult situations I will find a way.
3. I master difficult problems.
4. I am facing my future in an optimistic way.
5. I can hardly think of something positive in the future.
6. I can master difficulties.
7. I worry about my future.
8. I always find a solution to a problem.
9. It often seems to me that everything is gloomy.

Items 4, 5, 7, and 9 reflect personal optimism.
Items 1, 2, 3, 6, and 8 reflect self-efficacy optimism.