Examining Discrimination and Stigma Towards Neurodivergent Individuals in Lebanon: A

Correlational Study

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Abstract

This study aims to examine if there is discrimination and stigma towards neurodivergent individuals in Lebanon through a quantitative approach. By understanding the root causes of the stigma and discrimination towards neurodivergent individuals in the Lebanese society, the study aims to contribute to the creation of a more inclusive and accepting society. To achieve this goal, the study design will employ a quantitative data collection method, using an online survey that includes close-ended questions and scales. The data will be analyzed using statistical analysis. The study's significance lies in its potential to inform the development of more inclusive policies and practices not only in Lebanon but also in other countries in the region. Although the study has some limitations, such as possible sampling bias, the research design and analysis methods will be carefully considered.

Keywords: Neurodivergence; ADHD; Autism; Acceptance; Discrimination; Stigmatization; Lebanon

Introduction

Neurodivergence is a term that refers to the neurological differences that can impact brain function and individual behavior. These differences can be categorized into various conditions based on the dominant symptoms experienced by individuals. According to the Cleveland Clinic (2022), some of these conditions include Autism Spectrum Disorder (ASD), Attention Deficit Hyperactivity Disorder (ADHD), Dyslexia, and others. Neurodivergent individuals may experience a range of challenges that affect their cognitive, social, and emotional abilities and can significantly impact their daily lives. These challenges may manifest in several areas, such as communication, social interaction, sensory processing, and executive functioning, among others (Yergeau, 2018).

For instance, individuals with ASD may encounter difficulties with social interactions, communication, and repetitive behaviors. On the other hand, individuals with ADHD may struggle with impulse control, attention, and hyperactivity. Furthermore, individuals with dyslexia may experience challenges in reading, writing, and spelling (Cleveland Clinic, 2022). It is crucial to recognize that neurodivergent individuals also possess unique strengths and abilities. For instance, individuals with ASD may exhibit exceptional memory and attention to detail, while those with ADHD may demonstrate high levels of creativity and problem-solving skills. These strengths can be leveraged to help neurodivergent individuals succeed in academic, occupational, and social settings (Yergeau, 2018).

A study conducted by Yu et al. (2020) investigates public knowledge and stigma surrounding Autism Spectrum Disorder (ASD) in China and the United States, employing the Autism Stigma and Knowledge Questionnaire (ASK-Q) for cross-cultural comparison. The ASK-Q, translated into Chinese and validated with a sample of 1254 Chinese citizens, demonstrated robust psychometric properties, endorsing its suitability for cross-cultural ASD knowledge assessment. The findings revealed substantial disparities between the two nations, with Chinese citizens exhibiting lower ASD knowledge and higher stigma compared to their American counterparts (Yu et al., 2020). Cognitive diagnosis modeling indicated that only 57-65% of Chinese citizens possessed adequate ASD knowledge, in stark contrast to the 86-91% observed among Americans. Notably, Chinese citizens displayed specific knowledge deficits concerning core ASD symptoms, comorbid intellectual disability, and prognosis/outcomes, coupled with a higher likelihood of endorsing misconceptions regarding ASD causes. The study

underscores the influence of various sociodemographic factors on public perceptions of ASD in

China. Gender, ethnicity, rural residence, socioeconomic status (SES), media sources of ASD

information, and lack of personal experience with ASD were identified as significant

contributors to misconceptions and stigma (Yu et al., 2020). In contrast, these factors had

minimal impact on ASD knowledge among the American population. Furthermore, the study

identified specific misconceptions prevalent in China, such as the belief that autism is

preventable or caused by early trauma. These misconceptions, in turn, were associated with

sociodemographic factors like gender, ethnicity, rural residence, and lower education/income

levels, with media sources playing a substantial role in shaping public perceptions. In contrast,

the United States exhibited less variability in ASD knowledge, with gender, ethnicity, and SES

having minimal impact. The lack of a significant influence of personal experience on knowledge

suggests a pervasive awareness of ASD in the American population.

Lebowitz (2016) explores the pervasive nature of the stigmatization associated with

Attention-Deficit/Hyperactivity Disorder (ADHD). Despite its prevalence, affecting

approximately 9% of children in the United States, individuals with ADHD face significant

societal stigma. The study reveals that desired social distance from individuals with ADHD is

comparable to, if not stronger than, that observed for depression. Public attitudes toward ADHD

symptoms contribute to this stigma, with ADHD symptoms perceived as less serious, less likely

to be categorized as a mental illness, and less in need of treatment compared to depression.

Approximately 20% of U.S. adults express reluctance to interact with a child exhibiting ADHD

symptoms, and social distance increases for boys and older children. The stigmatization extends

to perceptions of violence and self-harm, with a significant portion of the population believing

that children with ADHD symptoms are likely to be violent or engage in self-harm, particularly

for boys. Educational settings are not immune to this stigma, as teachers perceive lower

academic abilities in students with ADHD, even after controlling for test scores. Parents also

contribute to negative evaluations. Parents of children with ADHD experience stigma and

isolation, with some holding stigmatizing attitudes about ADHD treatment. Adolescents'

utilization of ADHD treatment is negatively impacted by their perception of ADHD as

stigmatized, raising concerns about exposure through medication use. Comparative analyses

highlight that undergraduates rate peers with ADHD less socially desirable than those with other

weaknesses, experiencing more social rejection than peers with no symptoms (Lebowitz et al.,

2016). Additionally, children and adolescents endorse more negative traits and exhibit increased

social distance toward peers with ADHD compared to conditions such as asthma.

In the study conducted by Syharat et al. (2023), the experiences of neurodivergent

graduate students in STEM programs were qualitatively explored through focus groups and

thematic analysis. The research, which involved 18 participants at a large R1 university in the

U.S., identified three interconnected themes that shed light on the unique challenges faced by

neurodivergent graduate students. Firstly, the internalization of neurotypical norms highlighted

the pressure felt by students to conform to societal expectations of a "good" graduate student,

leading to negative self-judgments when deviating from these norms. Secondly, the phenomenon

of self-silencing emerged as students navigated the advisor-advisee relationship, concealing

aspects of their neurodiversity to maintain stability and avoid negative consequences. Thirdly,

neurodivergent burnout resulted from the demands of overwork and the necessity to mask their

neurodiversity, placing a significant mental and emotional burden on the students (Syharat et al.,

2023). The intersection of these themes revealed challenges related to a lack of belonging, work-life imbalance, and mental health issues. The study emphasized the influence of overarching power structures, assumptions about the ideal graduate student, and the advisor-advisee relationship in shaping these experiences. The invisibility of neurological diversity emerged as a core feature, and the study presented a novel model depicting the interrelationships between the identified themes. Despite the challenges, the participants perceived strengths related to their neurodiversity as beneficial to their STEM field. The implications of the findings suggest the need for increased awareness among faculty, addressing power dynamics and cultural aspects in STEM programs, and policy changes to incorporate flexibility.

Donze, S. (2022) explores the neurodiversity paradigm, emphasizing its significance beyond autism spectrum disorder (Donze, S., 2022). Historically, neurodivergent individuals faced isolation and pathologization, but the neurodiversity movement seeks to foster acceptance and inclusion, positioning neurodiversity as a social justice concept akin to other dimensions of diversity such as race and gender. The social model of disability, which attributes challenges to societal barriers rather than individual deficits, aligns with the neurodiversity perspective. Donze's study notes disparities in the progress of neurodiversity and inclusion between Western and Eastern countries, highlighting the impact of political intersections on social movements. Drawing on transformative learning theory and relative deprivation theory, the research provides insights into the foundations of the neurodiversity movement and the role of collective behavior. Emphasizing the crucial role of educators in creating positive and inclusive environments for neurodivergent students, the study underscores the importance of identity development, self-advocacy, and intersectional approaches that consider socio-cultural disadvantages. Donze

concludes by calling for further research from educators to improve inclusion, expectations, and the universal understanding of neurodiversity (Donze, S., 2022).

The current state of research on neurodivergence and acceptance in Arab countries including Lebanon is weak (Alallawi et al., 2020). There is not enough research on the topic especially when it comes to uncovering the barriers behind the stigma towards neurodivergent individuals. According to Gillespie-Lynch et al. (2019), stigma towards mental health is generally heightened in collectivistic cultures, mainly due to the cultural values where some vertical cultural values contribute to stigma towards disabilities. Moreover, stigma towards autism is associated with poorer mental health among autistic adults and decreased help-seeking among autistic college students. Another factor linked to stigma towards neurodivergent individuals is socioeconomic disparity, which leads to inequalities in access to autism resources, which may amplify stigma. Another study conducted by Obeid et al. (2015) that compared the knowledge and stigma associated with Autism Spectrum Disorder among college students in Lebanon and the United States, highlighted that the US students had higher baseline knowledge and lower stigma than Lebanese students.

Examining the discrimination and stigma towards neurodivergent individuals in Lebanon is crucial, as it allows us to highlight and understand the root causes behind it. According to Abi Doumit et al. (2019), individuals with mental illnesses faced pertinent discrimination and social distance. Moreover, the authors stressed that more awareness is needed to improve the knowledge of the Lebanese population and reduce stigma about mental illness in Lebanon. A study conducted by Clouder et al. (2020) that focused on Lebanese neurodivergent students in

higher education highlighted that the fear of stigmatization and labeling worsens academic success. Furthermore, gender, autistic traits, and personal experiences with ASD were associated with knowledge and stigma towards neurodivergence (Obeid et al., 2015).

In a cross-cultural validation study conducted by Nagata et al. (2007), the research delves into the measurement of the 'Baseline Survey of Students' Attitudes toward People with a Disability' originally implemented in Hong Kong and its applicability in Lebanon. The investigation highlights the prevalence of negative attitudes among non-disabled individuals as significant barriers impeding the integration of disabled citizens. Focused on assessing existing attitudinal barriers in Lebanon, the study adopts the World Health Organization International Classification of Functioning, Disability and Health (WHO-ICF) model as its theoretical framework, encompassing socioeconomic, cultural, and legal dimensions of disability (Nagata, 2007). The research underscores the importance of understanding the multidimensional nature of attitudes, emphasizing that they vary among different disabilities. Nagata's survey, administered to 94 students across three universities in Beirut, Lebanon, explores the relationships between student attitudes, social characteristics, and experiences with disabled individuals (Nagata et al., 2007). The survey, which includes subscales on optimism-human rights, behavioral misconceptions, pessimism-hopelessness, and social acceptance, reveals negative attitudes particularly toward intellectual disability and mental illness. Despite the prevalence of negative attitudes, the study suggests that exposure and professional training contribute to more positive attitudes, indicating potential avenues for intervention (Nagata et al., 2007). Furthermore, the findings highlight the need for nuanced approaches in public awareness programs in Lebanon, with an emphasis on correcting deep-rooted misconceptions and targeting younger students. This

study conducted by Nagata et al. (2007) serves as a critical contribution to the understanding the discrimination and stigma towards neurodivergent individuals in Lebanon and emphasizes the importance of tailored interventions for different disabilities.

The primary of objective of the study was to examine if there is discrimination and stigma towards neurodivergent individuals in Lebanon through a quantitative approach. Based on the existing literature we hypothesize that the lack of awareness and knowledge about neurodivergence and neurodivergent disorders would be associated with heightened stigma and discrimination present towards neurodivergent individuals in Lebanon.

2. Methods

2.1 Study Design

The aim of the current study is to examine if there is discrimination and stigma towards neurodivergent individuals in Lebanon by employing a quantitative research design consisting of close-ended questions and scales. This design is well-suited for this type of research question, as it allows for statistical analysis.

The study targets individuals in Lebanon with exposure or awareness of neurodivergent individuals, including those with personal or professional relationships or those who have encountered neurodivergence in their communities, schools, or workplaces. Recruitment will be done via online platforms, social media, and relevant groups and pages, with eligibility limited to individuals over 18 years old who can read and write in Arabic or English. Informed consent will be required before commencing the survey, and responses will remain anonymous to ensure confidentiality.

2.3 Data Collection

An online survey methodology using close-ended questions and scales will be employed to collect data. Close-ended questions and scales provide response options that can be coded numerically and analyzed using statistical software such as SPSS for rigorous data analysis and generalization of the results to the target population, which can offer valuable insights into the discrimination and stigma towards neurodivergent individuals in Lebanon.

2.4 Measures

The study will prioritize ethical considerations to protect the rights and privacy of participants. Participants will be provided with a concise description of the study's purpose and procedures and asked for informed consent before beginning the survey. Confidentiality of participant data will be strictly maintained, and the survey questions will be designed to minimize any potential risks or harm to participants. The study will follow the ethical principles outlined in the APA Code of Ethics and be reviewed and approved by an IRB.

2.5 Scales

For this study, we utilized four scales to measure attitudes towards neurodivergent individuals. The first scale used was the ADHD-specific knowledge and attitudes of teachers (ASKAT) developed by Mulholland, S. (2016). The ASKAT is a widely used scale that measures the knowledge of ADHD and the attitudes of people towards people with ADHD. The ASKAT consists of 20 items that measure the knowledge of ADHD, which were deployed in the survey.

The second scale used was the ADHD Stigma Questionnaire developed by Kellison et al. (2010). The ADHD Stigma Questionnaire is a measure of stigma towards people with ADHD that has been validated. The ADHD Stigma Questionnaire consists of 37 items that measure stigma towards people with ADHD using 6 domains: Reliability and Social Functioning, Malingering and Misuse of Medication, Ability to Take Responsibility, Norm-violating and Externalizing Behavior, Consequences of Diagnostic Disclosure, Etiology.

The third scale used was the Autism Stigma and Knowledge Questionnaire (ASK-Q) developed by Harrison et al. (2017). The ASK-Q consists of 46 items that were used to measure the knowledge of autism.

The fourth scale used was the Societal Attitudes toward Autism (SATA) Scale developed by Flood et al. (2013). The SATA scale consists of 16 items that were used to measure the stigma and discrimination towards individuals who have autism.

By using these scales, we aimed to capture a comprehensive understanding of the knowledge and discrimination towards neurodivergent individuals in Lebanon. The ASKAT scale provided a specific focus on examining the knowledge of ADHD, while the the ADHD Stigma Questionnaire provided a more nuanced understanding of stigma and discrimination towards individuals with ADHD. Moreover, the ASK-Q scale provided an understanding of the knowledge of autism, while the SATA scale was used to uncover the stigma and discrimination towards individuals with autism.

2.6 Data Analysis

Quantitative data collected through the online survey will be analyzed using statistical analysis methods such as descriptive statistics (frequencies, means, and standard deviations) and inferential statistics to examine relationships between variables and test for significant differences between groups for a deeper understanding of stigma and discrimination in Lebanon.

All statistical analyses were conducted using SPSS. The data collected from the four scales measuring attitudes towards neurodivergent individuals were subjected to rigorous statistical examination. Firstly, the normality of the distributions for each scale was assessed and found to be approximately normally distributed. Subsequently, various analyses were performed to explore associations and differences across different variables.

To assess the relationship between awareness/knowledge and stigma/discrimination towards ADHD and autism, Pearson correlation coefficients were computed. Additionally, the impact of level of contact with neurodivergent individuals on knowledge and attitudes was examined using one-way ANOVA.

2.7 Limitations

To address potential limitations, a diverse range of participants will be recruited from various backgrounds and locations within the country through multiple channels, including social media, online forums, and relevant organizations. Additionally, steps will be taken to minimize potential response biases due to the self-reported nature of survey responses, including

confidentiality and anonymity of participants and the careful design of survey questions to

minimize potential risks or harm to participants.

Results

Demographics

Participants in this study included 119 individuals from Lebanon, predominantly females

(77.3%) with the majority aged between 18 and 24 years (61.3%). The sample was diverse in

terms of religion, with 50.4% identifying as Muslim Sunni and the rest distributed among other

Christian denominations and Druze. Most participants were single (76.5%) and without children

(76.5%), reflecting a young, predominantly student population (45.4%). Education levels varied,

with a significant proportion holding a Bachelor's degree (43.7%).

Table 1

Demographics

2 refused to participate, 2 were not Lebanese residing in Lebanon

		Frequency	Percentage (%)
Gender	Males	26	21.0
	Females	92	77.3
	Other	1	0.8
Age	18-24	73	61.3
	25-34	18	15.1
	35-44	13	10.9
	45-54	7	5.9
	55-64	8	6.7
Religion	Christian Catholic	6	5.0
	Christian Orthodox	8	6.7
	Muslim Sunni	60	50.4
	Muslim Shia	14	11.8
	Druze	8	6.7
	Atheist	14	11.8
	Other	9	7.6
Marital status	Single, never married	91	76.5

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	Married	24	20.2
	Widowed	3	2.4
	Divorced	1	0.8
Number of children	None	91	76.5
	1	2	1.7
	2-4	26	21.8
Employment status	Employed	50	42.0
	Self employed	5	4.2
	Out of work and looking for a job	3	2.5
	Out of work but not currently looking for a job	2	1.7
	Homemaker	2	1.7
	Student	54	45.4
	Retired	2	1.7
	Unable to work	1	0.8
Educational level	Nursery school to 8th grade	1	0.8
	Some high school no diploma	4	3.4
	Highschool graduate, diploma or equivalent	44	37.0
	Bachelor's degree	52	43.7
	Master's degree	17	14.3
	Doctorate degree	1	0.8
Total		119	100.0

Table 2

Main variables of interest

	Mean	SD
ADHD knowledge	31.36	5.768
ADHD stigma	79.44	14.369
Autism knowledge	60.98	5.172
Social attitudes towards Autism	33.50	6.053

Knowledge and Stigma Towards ADHD and Autism

The average score for knowledge about ADHD among participants was 31.36 with a standard deviation of 5.768, while the average stigma score for ADHD was notably higher at 79.44 (SD = 14.369). This suggests a moderate level of knowledge and a relatively high level of stigma associated with ADHD. For autism, participants showed better knowledge (M = 60.98, SD = 5.172) and lower social stigma (M = 33.50, SD = 6.053), indicating a disparity in the perception and understanding of different neurodivergent conditions.

Table 3

Association between ADHD awareness & knowledge and stigma & discrimination

		Awareness & knowledge	Stigma & discrimination
Awareness & knowledge	Pearson correlation	1	0.071
	P-value	--	0.444
	N	119	119
Stigma & discrimination	Pearson correlation	0.071	1
	P-value	0.444	--
	N	119	119

*Coefficients and P-values generated using Pearson Correlation test

Table 4

Association between Autism awareness & knowledge and social attitude

		Awareness & knowledge	Social attitude
Awareness & knowledge	Pearson correlation	1	-0.120
	P-value	--	0.192
	N	119	119
Social attitude	Pearson correlation	-0.120	1
	P-value	0.192	--
	N	119	119

*Coefficients and P-values generated using Pearson Correlation test

Correlational Analysis

Pearson correlation coefficients revealed no significant relationship between ADHD awareness and stigma ($r = 0.071$, $p = 0.444$), nor between autism awareness and social attitudes ($r = -0.120$, $p = 0.192$), suggesting that increased awareness does not correlate strongly with reduced stigma or more favorable social attitudes within this sample.

Influence of Contact Level

Levels of contact with individuals having ADHD or autism showed no significant impact on knowledge or stigma. For ADHD, contact varied ($p = 0.788$), and similarly, there was no significant variation in knowledge about autism based on the level of contact ($p = 0.777$). These findings indicate that mere contact with neurodivergent individuals may not be sufficient to alter perceptions significantly.

Table 5
Association between level of contact and knowledge about ADHD

Level of contact	Mean ± standard deviation					
	Little to no contact	Employed or volunteered with a person with ADHD	Have a friend with ADHD	Have a family member with ADHD	Have been a primary giver for a person with ADHD	p-value[*]
Knowledge about ADHD	32.09±6.46	30.63±4.10	32.45±5.90	28.93±4.62	31.50±5.07	0.121

[*]P-value was generated using one-way ANOVA

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Table 6

Association between level of contact and stigma towards ADHD

Level of contact	Mean ± standard deviation					
	Little to no contact	Employed or volunteered with a person with ADHD	Have a friend with ADHD	Have a family member with ADHD	Have been a primary giver for a person with ADHD	p-value[*]
Stigma towards ADHD	81.23±14.58	82.75±19.33	78.41±14.26	77.57±13.88	81.50±8.505	0.788

[*]P-value was generated using one-way ANOVA

Table 7

Association between level of contact and knowledge about Autism

Level of contact	Mean ± standard deviation						
	Little to no contact	Employed with a person with autism	Have a friend with autism	Have a family member with autism	Have been a primary giver for a person with autism	Have volunteered with a person with autism	p-value[*]
Knowledge about Autism	61.56±6.41	60.44±1.81	61.24±3.31	60.60±2.94	59.00±6.93	59.29±7.041	0.777

[*]P-value was generated using one-way ANOVA

Table 8

Association between level of contact and social attitudes towards Autism

Level of contact	Mean ± standard deviation						
	Little to no contact	Employed with a person with autism	Have a friend with autism	Have a family member with autism	Have been a primary giver for a person with autism	Have volunteered with a person with autism	p-value[*]
Social attitudes towards Autism	34.60±6.73	33.67±4.09	35.52±5.20	32.30±5.98	34.17±2.14	31.43±7.99	0.550

[*]P-value was generated using one-way ANOVA

Limitations

One primary limitation of this study is the demographic composition of the sample, which predominantly consisted of young, single, and highly educated individuals from urban areas, potentially limiting the generalizability of the findings to the broader Lebanese population. This demographic skew towards younger and more educated participants may have influenced the levels of reported stigma and knowledge, as these groups are often more exposed to diverse viewpoints and potentially more progressive attitudes towards neurodivergence.

The study's reliance on self-reported measures poses another limitation due to potential biases such as social desirability bias, where participants might have responded in a manner they perceived as socially acceptable rather than truthful. Additionally, the cross-sectional nature of the study limits the ability to determine causality between awareness, knowledge, and stigma.

The absence of significant correlations between increased awareness or contact with neurodivergent individuals and reduced stigma or improved attitudes might be attributed to several factors. Firstly, the scales used to measure stigma and knowledge might not have been sensitive enough to detect subtle differences or changes in attitude. Secondly, it is possible that the level of awareness or type of contact reported by participants was not sufficiently deep or meaningful to influence entrenched stigmas, suggesting that not all contacts are equally effective in reducing prejudice.

Future studies should aim to include a more representative sample of the Lebanese population, particularly including individuals from different age groups, lower educational levels, and rural areas to enhance the generalizability of the findings. Longitudinal studies could provide insights into how attitudes and knowledge evolve over time and the impact of continuous exposure to neurodivergent individuals.

Moreover, qualitative research could add depth to the understanding of cultural and personal reasons behind the stigma and discrimination towards neurodivergent individuals. Such studies could explore personal narratives and the influence of family and community on shaping these attitudes.

Discussion

This study aimed to examine the presence and extent of discrimination and stigma towards neurodivergent individuals in Lebanon, hypothesizing that lower awareness and knowledge about neurodivergence would correlate with higher levels of stigma and

discrimination. The findings, however, did not show significant correlations between increased

awareness or contact and lower stigma or discrimination, suggesting that other factors may

influence these attitudes within the Lebanese context.

The data revealed moderate levels of awareness about ADHD and autism among

participants but relatively high stigma towards ADHD compared to autism. This disparity might

be attributed to the different societal perceptions and possibly the portrayal of these conditions in

media and educational materials, where autism might be more frequently discussed or depicted

in a sympathetic light. This aligns with global trends where autism awareness is generally rising

but misconceptions and stigma about ADHD persist. The lack of significant correlation between

awareness and stigma suggests that mere knowledge or superficial contact with neurodivergent

individuals might not be sufficient to change entrenched societal attitudes. This aligns with

previous studies suggesting that the quality of contact and personal relationships might be more

crucial in stigma reduction than mere awareness or superficial encounters.

Comparatively, the findings diverge from studies in more individualistic societies where

increased awareness often correlates with reduced stigma. For instance, in the United States,

efforts to improve autism awareness have been somewhat successful in reducing stigma (Obeid

et al., 2015). This discrepancy underscores the importance of considering cultural nuances in

stigma reduction strategies and the potential limitations of applying strategies successful in one

region directly to another without adaptation.

The study highlights the critical need for comprehensive education programs that go beyond simple awareness-raising to actively challenge stereotypes and misconceptions. Educational initiatives should be designed with cultural sensitivity in mind and should involve stakeholders from various sectors, including healthcare, education, and community leaders, to ensure broad reach and effectiveness.

Moreover, incorporating neurodivergence education into school curricula could foster a more inclusive environment from a young age, potentially reducing stigma as future generations become more informed and empathetic towards neurodivergent peers.

As discussed in the limitations section, the study's sample and methodological constraints might have impacted the findings. Future research should strive to include a broader demographic to enhance generalizability and employ longitudinal designs to explore changes over time and causality.

In conclusion, this study contributes to the limited but growing body of research on neurodivergence in Lebanon, suggesting that while awareness is somewhat present, significant stigma persists, particularly towards ADHD. This calls for strategic, culturally adapted interventions to effectively address and mitigate these stigmas, thereby fostering a more inclusive society.

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NOTICE OF IRB EXEMPTION DETERMINATION

To:	Mr. Tarek Hamidi Saker Dr. Rudy Abi Habib Assistant Professor School of Arts and Sciences

> **NOTICE ISSUED:** 29 February 2024
> **EXPIRATION DATE:** 1 March 2026
> **REVIEW TYPE:** EXEMPT CATEGORY B

Date: February 28, 2024

RE: ***IRB #:*** *LAU.SAS.RH12.28/Feb/2024*
Protocol Title: *Examining Discrimination and Stigma Towards Neurodivergent Individuals in Lebanon: A Correlational Study*

Your application for the above referenced research project has been reviewed by the Lebanese American University, Institutional Review Board (LAU IRB). This research project qualifies as exempt under the category noted in the Review Type.

This notice is limited to the activities described in the Protocol Exempt Application and all submitted documents listed on page 2 of this letter. **Final reviewed consent documents or recruitment materials and data collection tools released with this notice are part of this determination and must be used in this research project.**

APPROVAL CONDITIONS FOR ALL LAU APPROVED HUMAN RESEARCH PROTOCOLS - EXEMPT

LAU RESEARCH POLICIES & PROCEDURES: *All individuals engaged in the research project must adhere to the approved protocol and all applicable LAU IRB Research Policies & Procedures. PARTICIPANTS must NOT be involved in any research related activity prior to IRB approval date or after the expiration date.*

EXEMPT CATEGORIES: *Activities that are exempt from IRB review are not exempt from IRB ethical review and the necessity for ethical conduct.*

PROTOCOL EXPIRATION: *The LAU IRB approval expiry date for studies that fall under Exemption is 2 years after this approval as noted above. If the study will continue beyond this date, a request for an extension must be submitted at least 2 weeks prior to Expiry date.*

MODIFICATIONS AND AMENDMENTS: *Certain changes may change the review criteria and disqualify the research from exemption status; therefore, any proposed changes to the previously approved exempt study must be reviewed and approved by the IRB before implementation.*

NOTIFICATION OF PROJECT COMPLETION: *A notification of research project closure and a summary of findings must be sent to the IRB office upon completion. Study files must be retained for a period of 3 years from the date of notification of project completion.*

IN THE EVENT OF NON-COMPLIANCE WITH ABOVE CONDITIONS, THE PRINCIPAL INVESTIGATOR SHOULD MEET WITH THE IRB ADMINISTRATORS IN ORDER TO RESOLVE SUCH CONDITIONS. IRB APPROVAL CANNOT BE GRANTED UNTIL NON-COMPLIANT ISSUES HAVE BEEN RESOLVED

If you have any questions concerning this information, please contact the IRB office by email at irb@lau.edu.lb

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The IRB operates in compliance with the national regulations pertaining to research under the Lebanese Minister of Public Health's Decision No.141 dated 27/1/2016 under LAU IRB Authorization reference 2016/3708, the international guidelines for Good Clinical Practice, the US Office of Human Research Protection (45CFR46) and the Food and Drug Administration (21CFR56). LAU IRB U.S. Identifier as an international institution: FWA00014723 and IRB Registration # IRB00006954 LAUIRB#1

Dr. Joseph Stephan
Chair, Institutional Review Board

DOCUMENTS SUBMITTED:

LAU IRB Exempt Protocol Application	Received 16 February 2024, Amended 20 February 2024
Research Protocol	Received 16 February 2024, Amended 20 February 2024
Informed Consent Form	Received 16 February 2024, Amended 20 February 2024
Questionnaire	Received 16 February 2024, Amended 20 February 2024
Link to online survey	Received 16 February 2024, Amended 20 February 2024
IRB Comments sent: 19 February 2024 20 February 2024	**PI response to IRB's comments dated:** 20 February 2024 20 February 2024
CITI Training – Rudy Abi Habib	Cert.# 40567007 Dated (25 January 2021)
CITI Training – Tarek Hamidi Saker	Cert.# 60906917 Dated (12February 2024)

Institutional Review Board
Lebanese American University

2 9 FEB 2024

APPROVED