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Research Article

Chivalric disposition and mental health: a survey study of Maltese men

Matthew Sciberras[1], Claire Abela [2], and Matthew Muscat-Inglott[3*]

Institute of Community Services, Malta College of Arts, Science & Technology, Paola, Malta

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Abstract

The study investigates the relationship between chivalric disposition and mental health outcomes in Maltese men, in the context of broader mental health trends in Malta. Chivalric disposition was conceptualised as a construct grounded in the culturally evolved values and beliefs historically associated with chivalry, and hypothesised to influence mental health, specifically in the form of depression, anxiety, and stress. A sample of 78 Maltese men was surveyed using two main instruments, namely, a bespoke scale designed to measure chivalric disposition and a pre-validated Depression Anxiety Stress Scale (DASS-21). Statistical analyses revealed a small but significant inverse correlation between uptake of chivalrous values and depression, suggesting that individuals with higher CD levels experience slightly lower depression. Various post hoc partial correlation tests further showed how adherence to chivalrous values may act as a mild protective factor against depression, possibly through its influence on cognitive processes associated with the experience of stressful events. The findings contribute to a deeper developing understanding of chivalric disposition as a stable cultural construct with potential implications for men's mental health. Further research is recommended to explore the broader impact this construct may have on mental health and other matters of interest to contemporary social scientists.

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Introduction

The present study was conceived to address two main objectives within the context of men's mental health in the small Mediterranean island state of Malta. Firstly, it was motivated by the desire to understand potential factors affecting adverse mental health outcomes among Maltese men. More specifically, this involved hypothesising that men's mental health is influenced by a particular construct we are calling "Chivalric Disposition" (CD). The second objective was concentrated on this latter construct, to continue to understand it in greater depth, along with its uptake and implications in contemporary settings. An online survey was designed using two primary instruments. The first was a pre-existing, validated scale selected to measure aspects of mental health in Maltese men in the form of depression, anxiety and stress. The second was a new scale currently under development at our native institute aimed at measuring uptake of CD.

There has been a spike in media attention lately, on disquieting suicide rates among Maltese men (Bonnici, 2018; Caruana Galizia, 2023). In a study of depression, anxiety, stress, eating disorders and general life satisfaction in Maltese

[1] Institute of Community Services, Malta College of Arts, Science & Technology, Paola, Malta. E-mail: sciberrasmatthew2@gmail.com
[2] Institute of Community Services, Malta College of Arts, Science & Technology, Paola, Malta. E-mail: claire.abela@mcast.edu.mt
[3] Corresponding Author: Dr., Institute of Community Services, Malta College of Arts, Science & Technology, Paola, Malta. E-mail: matthew.muscat.inglott@mcast.edu.mt ORCID: 0000-0002-2091-3494

vocational education students during the Covid-19 pandemic, Abela et al. (2024) showed that more than half (64%) of those surveyed struggled with at least one of the mental health conditions they assessed. The participants also generally demonstrated a lower health-related quality of life than the European average, representing some cause for concern about the general state of mental health in Maltese youths. The survey also revealed, just as various international studies have, that measures of depression tend to be higher among females (Neitzke, 2016; Tolentino & Schmidt, 2018). Yet, according to Grech and Micallef Trigona (2020) twice as many males are admitted to psychiatric treatment in Malta, and 80 to 88% of suicides in Malta are committed by men (Bonnici, 2018; Caruana Galizia, 2023). Suicidality is more complex and nuanced than can be ascertained by examining depression statistics alone, so exploring additional particularities in male responses to adverse mental health appears warranted. While lower depression scores could simply be a reflection of a tendency among males to avoid seeking help (Oliffe et al., 2019), male responses to depression may very well be fundamentally different to those of females.

Treated as one possible source of nuance in understanding the broader landscape of men's mental health, therefore, we took the opportunity to build on a new branch of research underway at our native institute, by exploring the potential role of CD in men's mental health. From a theoretical perspective, CD is rooted in the field of gene-culture co-evolution, and treats the values and beliefs typically associated with chivalrous behaviour as cultural variants amenable to Darwinian evolutionary principles, as elaborated in the work of cultural evolution theorists like Cavalli-Sforza and Feldman (1981), Boyd and Richerson (1985; 2011) and Laland (2017). The historical record demonstrates a fairly consistent transmission of chivalrous codes and their constituent values and beliefs, evolving and manifesting through time in various explicit forms like those famously attributed (at least in the European context) to the Spartans, Romans and Medieval knights (Atkins, 1996; Banner, 2015; French, 2017). Theorising manifest iterations of the value complex we call chivalry on a single cultural evolutionary timeline, presupposes its continuing existence today, raising the important question about what form it takes and what its effects might be on societies and individuals. An important underlying assumption is made in this conception of CD, that chivalry is like to play a far more significant (albeit veiled) role in society than is typically implied by contemporary definitions of chivalry. Such definitions typically reduce it to relatively narrow, superficial and innocuous sets of behaviour, usually enacted by men, like opening doors or paying for meals. We suspect that chivalry has been coopted into what Gouws (2018) describes as a "gynocentric" or "misandric" theoretical landscape of male disposability, which stereotypes masculinity in the broader sense as somehow defective or in need of "cure". In other words, while chivalrous values may indeed happen to influence certain behaviours enacted by males directed at females, gender ultimately represents only a minor aspect of the vast panoply of theoretical considerations surrounding chivalry.

Viki et al's (2003) notion of "paternalistic chivalry" and Grabe et al's (2006) "chivalry hypothesis" for interpreting sentencing of crimes in North America as a function of gender bias in the form of "patriarchal chivalry", for instance, portrays chivalry predominantly as a gendered, masculine phenomenon. Taking a more neutral position, and measuring commitment to chivalrous values independently of specific male-female interactions, therefore, what possible contribution could CD be making in the context of men's mental health in Maltese men? More to the point, what might its contributions be with respect to the more pressing problems of increased psychiatric referrals and suicidality in the same population? Consequently, we hypothesised the existence of an association between CD and adverse mental health outcomes in Maltese men, with no presuppositions about the directionality of the relationship. The possibility of a positive relationship was entertained on the one hand, since CD and adverse mental health appear to be antithetical, by definition. The definition of chivalry is itself based on qualities like prowess, strength, bravery and courtesy, which appear fundamentally at odds with the tendency to be, say, demotivated, anxious or overwhelmed. On the other hand, the virtuous aspects of CD could be understood in the Nietzschean philosophical sense, to possibly exert adverse effects on mental health by acting as a psychological burden on individuals, with a risk of guilt, shame or despair resulting from failure to live up to the exacting standards of chivalrous virtues like goodness and purity. Given the lack of prior research

or theoretical grounding to suggest a specific directional hypothesis, therefore, an open, two-tailed approach to investigating the relationship between CD and mental health outcomes in men was taken. More broadly, we sought to explore the relationship between adverse mental health outcomes in Maltese men, and chivalry defined and measured in the form of CD as a novel way of conceptualising the phenomenon.

Method

Data Collection

Ethical clearance was awarded by the institutional review board at the Institute of Community Services, Malta College of Arts, Science and Technology in January 2024. The study took the form of an online closed-form survey with quantitative analysis of the resulting data. A convenience sampling strategy was used to recruit 78 male participants via social media outreach using personal networks of the researchers. Participants were provided with a *Google Forms* link to the online questionnaire, which included an initial selection of socio-demographic items measuring age, region of residence and employment status. Age was measured in five-year brackets, and was eventually clearly distributed in favour of the youngest age bracket of 20 to 24 years (See Figure 1). Taking the youngest age of each category as a reference value, the mean age was approximately 31.80 (*SD* = 13.02).

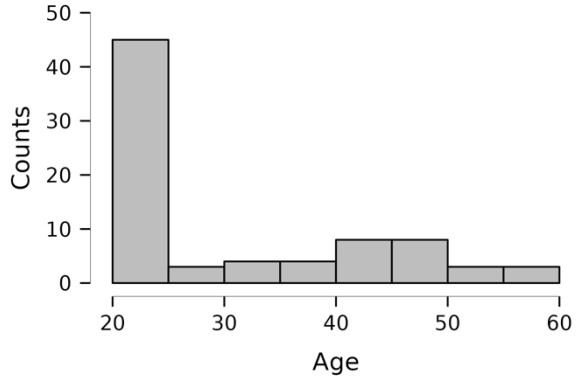

Figure 1. Histogram for age

Following the socio-demographic items, the questionnaire comprised two set scales, namely, a scale for measuring CD consisting of 21 items [CDS-21] (Muscat-Inglott, 2024), and a pre-existing depression, anxiety and stress scale [DASS-21] (Henry & Crawford, 2005; Lovibond & Lovibond, 1995). The CDS-21 was presented first. Every item in the scale starts with the phrase, "It is important for me to...", followed by one of a range of selected chivalrous qualities, and a five-point linear response scale with the labels "Strongly Disagree" (1) and "Strongly Agree" (5). As such, the CDS-21 scale is intended to measure the degree to which one values chivalrous qualities in oneself, without presuming gender specificity. The scale conceptualises CD as a combination of three inter-related, mutually constitutive dimensions, (chivalric fortitude, chivalric deference and chivalric virtue), and returns three averaged sub-dimension scores, namely, *C-For*, *C-Def* and *C-Vir*, respectively. These are then combined and weighted in a final score, the "CD Index" (*CDI*), which is normalised to take on any value between 0 and 1 with .50 acting as the threshold indicating the presence of CD. Basic fit and reliability statistics related to the CDI established in a prior, unpublished, scale-validation study based on a separate mixed-gender sample of 241 participants are shown in Table 1.

Table 1. Summary reliability and fit statistics for each factor and the 21 items overall (general)

	C-Vir	***C-For***	***C-Def***	***General***
Cronbach's α	.733*	.801*	.821*	.884*
McDonald's ω	.734*	.840*	.826*	.885*
RMSEA	.049*	.070*	.059*	.088
SRMR	.041*	.048*	.032*	.080

* Denotes acceptable values in terms of nominated thresholds.

The short form DASS-21 scale (Henry & Crawford, 2005; Lovibond & Lovibond, 1995) was presented to the participants in the third and final section of the questionnaire. Before these items, an additional question was added to ascertain if participants experienced any significant potential disruptions to their state of mental health. Specifically, participants were asked, "Have you experienced any major stressor/s or significant event/s over the past month? (work-related, financial, relationship, health, life transition, etc.)". This was included to add a degree of control, and provide additional context in terms of transience and relative stability of the constructs measured. The DASS-21 returns three sub-dimensions, namely, depression, anxiety and stress. These are conceptualised as possibly changing states rather than stable traits, and are viewed in terms of severity of normative distress in the general population rather than as qualitatively distinct conditions. Mental health problems are thereby conceptualised as dependent on normative distress, experienced at a high level of severity sufficient to impact the individual's life negatively. If one were to view this distress in terms of the Diagnostic and Statistical Manual of Mental Disorders (DSM) categories of mental illness, the 'Anxiety' Scale most closely resembles the symptom criteria for Anxiety Disorders excluding Generalized Anxiety Disorder, to which the 'Stress' Scale corresponds most closely. The 'Depression' scale most closely resembles Mood disorders. Since the tool was developed in 1995, reference is made to the DSM-IV. While the full DASS tool, which consists of 52 items, may be used by professionals for individual diagnostic purposes, the DASS-21 is considered more suitable for research purposes, and it is not intended for clinical diagnoses (Lovibond & Lovibond, 1995).

Data Analysis

According to the Shapiro-Wilk test, the final CDI scores were normally distributed ($\sigma = .974$, $p = .106$), as were those for stress ($\sigma = .971$, $p = .068$). The other main variables of interest, however (depression and anxiety), were not normally distributed (see Table 2). To test the main research hypotheses, therefore, the Spearman rank correlation test was selected as a convenient, robust non-parametric alternative to traditional regression analysis, for less dependency on assumptions about the distribution of data or linearity of the relationships, while also acknowledging that the original level of measurement of all main variables of interest was fundamentally ordinal. After sorting the data in an open-source spreadsheet application, *LibreOffice Calc* (*v.7.3.7.2*), all statistical procedures were run in the open-source software application *JASP* (*v.0.17.2.1*). For each pairwise correlation, the null hypothesis (H_0: $r_s = 0$) was rejected when $p < .05$ to infer statistically significant relationships, as per social science convention. The correlation coefficients were deemed mild/small if below .30, moderate if up to .40, and strong if .50 or more. To address the main research hypothesis, and since the DASS-21 produced three separate measures of mental health, the three hypotheses were simultaneously formulated, as more formally operationalised in Table 2.

Table 2. Statistical and null hypotheses

Hypotheses		**Null**
H_1	There is an association between *CDI* and *Depression*	H_0: $r_s = 0$
H_2	There is an association between *CDI* and *Anxiety*	H_0: $r_s = 0$
H_3	There is an association between *CDI* and *Stress*	H_0: $r_s = 0$

Various partial correlation analyses were also carried out post-hoc, to explore the relationship between two variables while controlling for a given third. Partial correlations using the Spearman method were treated as functionally equivalent to adding a covariate in an ANCOVA (Analysis of Covariance) model. These additional stages of the analyses are elaborated in the results below.

Results and Discussion

Table 3 shows the descriptive statistics for the main variables and CD sub-dimensions, with 95% confidence intervals (95% CI) included, as well as Shapiro-Wilk statistics indicating the trend towards non-normality.

Table 3. Descriptive statistics for main variables

Factor	***Mean***	***SD***	***95% CI***	***Shapiro-Wilk***
C-For	4.212	0.519	4.097, 4.328	$\sigma = .95$, $p = .004$
C-Def	3.549	0.769	3.379, 3.720	$\sigma = .973$, $p = .093$
C-Vir	4.084	0.599	3.951, 4.217	$\sigma = .958$, $p = .012$
CDI	0.556	0.196	0.513, 0.600	$\sigma = .974$, $p = .106$
Depression	7.269	5.410	6.069, 8.470	$\sigma = .944$, $p = .002$
Anxiety	6.000	4.440	5.015, 6.985	$\sigma = .946$, $p = .002$
Stress	8.756	4.601	7.735, 9.778	$\sigma = .971$, $p = .068$

Following computation of results from the different DASS-21 scales, participant scores were divided according to the population mean scores provided by Lovibond and Lovibond (1995) in the DASS manual. As can be seen in Table 4, the respondents' scores reflect the use of a sample from the general population rather than a clinical sample. No respondents scored within the 'Extremely Severe' categories of the mental health states assessed, and the majority of scores were within the normal range. These latter scores fall close to the population mean. While slightly above the population mean, participants scoring in the 'Mild' range do not have severe symptoms, so are perceived as not in need of help. Participants scoring in the 'Moderate', 'Severe' and 'Extremely Severe' ranges are considered to be in need of help, according to the level of severity exhibited.

Table 4. DASS-21 scores categorized according to severity.

Subscale	**Normal**		**Mild**		**Moderate**		**Severe**		**Extremely Severe**	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Stress	60	71.7	9	11.5	1	1.3	0	0	0	0
Anxiety	54	68	5	6.3	15	19.1	3	3.9	0	0
Depression	53	67.8	12	15.4	10	12.8	1	1.3	0	0

Implications for Mental Health

The use of a sample from the general population, which lacks a significant amount of responses from the 'Severe' and 'Extremely Severe' states of the mental health difficulties assessed in this study, limits the inferences which can be made to the general population rather than the clinical population. Nevertheless the CIs permit a simple initial comparison with published severity norms associated with the DASS-21 for depression, anxiety and stress (Henry & Crawford, 2005; Lovibond & Lovibond, 1995). For depression, the sample was generally representative of a mild to moderate (> 4) severity (*95% CI* = 6.07, 8.47). For anxiety, the sample was also in the mild to moderate (> 3) range (*95% CI* = 5.02, 6.99). For stress, severity was mild (≤ 7, *95% CI* = 7.74, 9.78).

These findings show the importance of addressing mental health difficulties among the Maltese male population. The 12.8% of respondents who scored in the 'Moderate' category of depression are experiencing symptoms of dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest or involvement, anhedonia and inertia which might, as in cases of sub-threshold depression, progress to more severe levels without intervention. Additionally, while the 3.9% of participants who experienced anxiety within the 'Severe' category are in line with the prevalence rate of anxiety of 4% reported by the WHO (World Health Organisation) in 2023, 19.1% of the participants are experiencing autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect comparable to the 'Moderate' category. These persons are experiencing difficulties, which although possibly not severe enough for them to be diagnosed with an anxiety disorder, may prevent them from experiencing a good quality of life and a high level of well-being. Introducing universal interventions at the general population level makes sense in prevention of these mental health difficulties and in avoiding escalation. It is here that CD may serve to inform alternative approaches to prospective interventions in the future, subject to its inverse correlation with adverse mental health outcomes.

The fact that no participants were categorised as 'Extremely Severe' in any of the three scales warrants further discussion. This may be due to response bias, length of the questionnaire, use of the English language (as opposed to Maltese) or use of social media to disseminate the questionnaire. Lower levels of education tend to be associated with more severe mental health difficulties (Office of the Deputy Prime Minister, 2018), so language and literacy difficulties may have presented a barrier to participation in this cohort. The stigma associated with mental health difficulties in Malta might have also played a role in dissuading those with such difficulties from participating. This may be especially significant for males, who, as already stated, tend to experience cultural pressure to be strong, making them unlikely to expose what might be perceived as a weakness or a lack of coping ability. To ascertain the degree to which CD may shed light on the prevalence of depressive, stress and anxiety symptoms in the general male population, and address the main study hypotheses, a correlation matrix was constructed to assess all main effects between the variables. Table 5 summarises these, including interactions with experience of recent stressors, and age.

Table 5. Correlation matrix for main and control variables

	CDI	**Depression**	**Anxiety**	**Stress**	**Stressor**
Depression	r_s = -.243 p = .032*				
Anxiety	r_s = -.168 p = .142	r_s = .657 p < .001***			
Stress	r_s = -.171 p = .135	r_s = .729 p < .001***	r_s = .714 p < .001***		
Stressor	r_s = -.300 p = .008**	r_s = .398 p < .001***	r_s = .399 p < .001***	r_s = .492 p < .001***	
Age	r_s = .252 p = .026*	r_s = -.127 p = .268	r_s = -.172 p = .132	r_s = -.115 p = .301	r_s = -.214 p = .060

** indicates significance at the 95% confidence level, ** at 99% and *** at 99.9%. Note:* Stressor *was a dummy coded variable representing affirmative responses to the questionnaire item related to experiencing recent stressful events.*

In the cases of both H_2 and H_3, the evidence was not sufficient to reject the null hypothesis. The small correlation coefficients implied no association between CDI and anxiety (r_s = -.17, p = .14), as well as stress (r_s = -.17, p = .14). With respect to H_1, the evidence was, on the other hand, sufficient to reject the null hypothesis, revealing a small but statistically significant inverse correlation between CDI and depressive state [r_s = -.24, p = .03] (Figure 2). The higher the CD, the lower the depressive state tends to be, where each variable can be said to explain approximately 6% (R^2 = .059) of the variation in the other. Considering what the CDI fundamentally purports to measure, we can make the claim that individuals who value chivalrous qualities in themselves tend to experience slightly lower levels of depression. That depression and CD are antithetical by definition, appears to be supported by the evidence. In other words, some of the key non-biological, non-genetic causal factors associated with depression include loss of interest/motivation, loss of power/social status/capital, low self-esteem and negative self-image (Neitzke, 2016, Remes et al., 2021; Tolentino & Schmidt, 2018), while the CDS-21 is characterised by contrasting qualities like boldness, strength and prowess. The evidence does not appear to support the Nietzschean interpretation posited earlier.

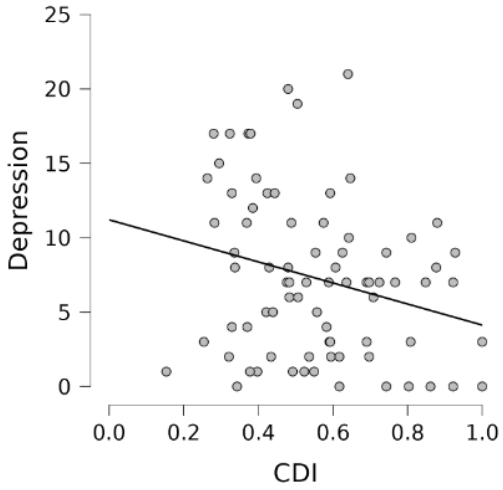

Figure 2. Scatter plot for CDI and *Depression*

While experimental research would provide clearer evidence given that correlation does not imply causation, other associations in the data nevertheless provided some valuable further insights. Among the stronger relationships noted were those involving the *stressor* and *age* variables. Unsurprisingly, experiencing stressful events was positively correlated with all three adverse mental health outcomes, increasing their severity. Otherwise stated, we can interpret this relationship to mean that those with higher levels of depression, stress or anxiety were more likely to experience and report recent events as stressful. The statistically significant association between recent stressor-reporting and CDI, on the other hand, was inverse (r_s = -.30, p < .01). If CD is treated as the independent/predictor variable in this case, we can say that those higher in CD were slightly less likely to acknowledge a recent event as stressful. We offer a justification for conceptualising CD as the predictor variable by taking into account the separately noted correlation between CDI and Age (r_s = .25, p = 03). Any such association with age would only be possible if CDI was itself a relatively stable construct. In other words, if CD correlates with age, then a degree of continuity must exist from year to year in order for it to systematically and predictably accumulate over time. Depressive state, meanwhile, did not correlate with age (r_s = -.127, p = .268), rendering CD comparatively stable among the two, and by extension, the more appropriate predictor variable.

Understood in the vein of Kelly's (1955; 1969) classic personal construct theory, CD resembles a form of cognitive apparatus influencing how individuals perceive and respond to stressful events. In this sense, it may serve as a mild protective factor against depression over time, whereby setbacks are perceived not as threatening or distressing, but as opportunities to exercise fortitude. As Eysenck and Fajkowska (2018) explain in terms of temporality, anxiety tends to involve worrying about the near future, while depression can be understood more as a function of ruminating about the past. Since depression is thought to actively inhibit the perception of positive information and trigger negative implicit memory bias with respect to perceptions of the past, awareness of positive chivalrous ideals like, for instance, strength, honour or bravery, could serve to actively mitigate the influence of negative, depressive cognitive schemas. If this is so, then we would indeed expect to see, simultaneously, a decrease in depression, along with a reduced tendency to recognise and report recent stressors. Hopelessness theory lends further support to this interpretation. As elaborated by Liu et al. (2015), if one experiences negative life events and interprets them with a negative cognitive style, one is more likely to feel hopeless. The theory proposes that this sense of hopelessness is, on its own, enough to lead to depression. Since cognitive interpretations, as also observed in the case of CD, are likely relatively stable, this theory explains also why depressive episodes are likely to reoccur. Further research might explore the capacity for CD to stem hopelessness due to its prevalent dimension of fortitude.

In the context of the DASS-21, anxiety and stress are defined in terms of psychological and physiological "arousal". Given that it was not correlated with either, therefore, CD does not appear to bear upon arousal or momentary emotional responses. Instead, it appears to reside within the more drawn out cognitive processes that take place when individuals interpret themselves and their experiences. This fits with the theoretical underpinnings of CD as primarily a

cultural phenomenon, or as a set of values that are not necessarily natural or instinctive, but rather, transmitted/learned. Since CD was associated with stressor-reporting, and stressor-reporting was itself associated with depression, partialing out the effects of stressor-reporting (see Figure 3) permitted application of Baron and Kenny's (1986) logic of mediation. In other words, the results of the partial correlation would ascertain the degree to which the effects of CD on depression operate *through* stressor-reporting. The loss of significance (r_s = -.14, p = .22), in this vein, duly indicated full mediation. CD, therefore, appears to operate chiefly in its capacity to alter perception of recent events. Over time, these altered perceptions are likely the main force responsible for the mildly positive effects of CD on mental health.

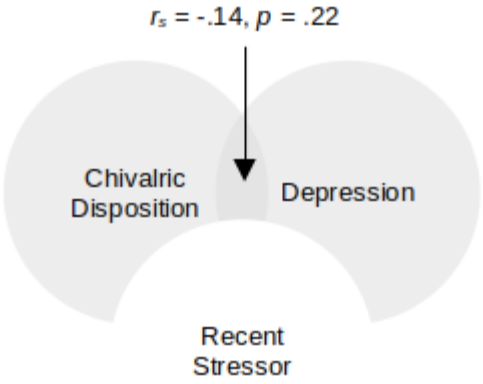

Figure 3. Visual for partial correlation between CD and depression, partialling out stressor-reporting.

Since age was not correlated with depression, the logic of mediation did not apply with respect to the relationship between CD and depression while controlling for age (see Figure 4). In other words, the lack of association between age and depression meant that there was no reason to believe that the relationship between CD and depression operated *through* age. Instead, partialing out age permitted an assessment of the relationship between CD and depression while adjusting for any variation in CD attributable to age, across all its levels. In other words, the relationship between CD and depression could be examined independently of age. As before, the relationship lost significance (r_s = -.22, p = .05). Since the initial correlation between CD and age was positive, this result suggests that the effect of CD on depression is slightly more pronounced at higher levels of age. In other words, it is reasonable to infer that the relationship between CD and depression operates to a greater degree as men get older, rendering age an important factor in considering the variable effects of CD on mental health.

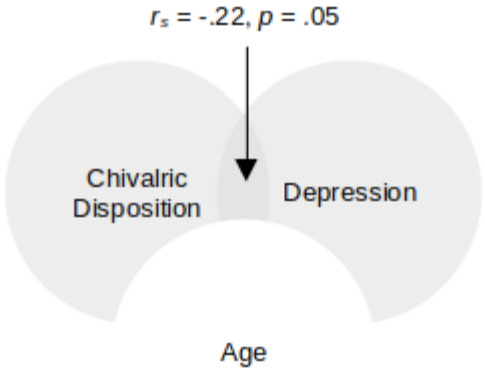

Figure 4. Visual for partial correlation between CD and depression, partialling out age

Implications for the Chivalric Disposition as a construct

Apart from suggesting a degree of relative stability inherent in CD as result of its association with age, the data provided some valuable additional insights to our evolving understanding of the construct. The CDI is a composite measure based on weighted averages of three inextricably linked sub-dimensions. Confirmatory factor analysis initially supported this three-factor model as the better fit (than a one-factor model), given the original scale-validation data (see Table 1 above). Yet, in light of low average variance explained [AVE] (< .50) values for *C-For* (= .40), *C-Def* (= .447) and *C-Vir* (= .282), in conjunction with high internal reliability (α = .88) across all 21 items combined, the evidence for CD as a strong over-arching extant construct was initially strong. In his analysis of medieval chivalry, Keen (2005) clearly elucidates both of these points, by arguing that chivalry arises as a unique phenomenon by fusing intertwined, interconnecting elements. More specifically he states, "the compound seems to be something new and whole in its own right, partly because it is clearly so difficult to completely separate the elements in it" (2005, p.16). The present study provides further empirical support for this view, by virtue of a compelling demonstration of emergent statistical validity. Table 6 shows the matrix of correlation coefficients for CDI and depression, with the three CD sub-dimensions included. Despite the CDI score being derived directly from these constituent dimensions, the coefficients with respect to depression show significance for CDI but for none of its sub-dimensions. This reveals an emergent quality to the construct, and essentially demonstrates a capacity for CDI to explain more than the sum of its parts, when correlated with an existing psychological measurement like depression.

Table 6. Correlation matrix for Depression, CDI and its constitutive sub-dimensions

	Depression	***C-For***	***C-Def***	***C-Vir***
C-For	r_s = -.219			
	p = .054			
C-Def	r_s = -.190	r_s = .428		
	p = .096	p < .001***		
C-Vir	r_s = -.179	r_s = .578	r_s = .628	
	p = .117	p < .001***	p < .001***	
CDI	r_s = -.243	r_s = .906	r_s = .718	r_s = .794
	p = .032*	p < .001***	p < .001***	p < .001***

** indicates significance at the 95% confidence level and *** at 99.9%.*

Conclusion and Discussion

The findings pertain to Maltese men, yet, are not intended to inform direct claims about specific differences between genders. Other studies are needed to explore the effects of CD as a function of gender. The analysis of the present data involved a robust non-parametric approach, which means precision was necessarily sacrificed. It should also be noted that the discussion on depression has been based on the DASS-21, which is associated with the DSM-4 (fourth edition). More recent iterations of the manual necessarily represent updated and evolved conceptualisations of depression. Future research may further examine the relationship between CD and depression with a view to addressing such limitations. Research with clinical samples might similarly shed further light on the topic, particularly on whether the influence of CD is still pertinent in clinical populations. Indeed, several avenues for further research directly follow. There is already motivation to carry out experimental studies on the effects of CD on observable chivalrous behaviours. The proposition that CD is involved in interpretive cognitive processes as argued above, introduces additional elements to such experimental research. More specifically, such experiments could introduce variable time availability, to investigate the degree to which CD operates within sufficient time periods to allow for relatively complex cognitive processes to take place, as opposed to occurring in a more instantaneous or instinctive manner.

In the context of the main objectives of the present study, Zhang and Li (2013) posited that the relationship between major depression and suicidality in men was significantly diminished when controlling for hopelessness. Feelings of

hopelessness, as well as low status and low satisfaction (Kielan et al., 2021), are factors associated with suicidality that are antithetical to the chivalrous notion of fortitude. In combination with the heroic, self-sacrificial aspects of chivalry (Frantzen, 2004; Meireis, 2022), further investigation of the potential effects of CD directly on suicidality appear warranted, independently of depression. As Bryant and Garnham (2015) argued, some men perceive suicide as an act of "heroism", lending further credence to the possible significance of CD in this important context. Further research might also explore the potential role of CD lowering men's likelihood to seek help when circumstances are dire (Oliffe et al., 2019). In conclusion, emergent validity, stability (and accumulation) over time, as well as the likelihood that CD operates through cognitive processes to alter interpretations of experiences, all contribute valuable insights to our developing understanding of CD as a construct. In the context of men's mental health in Malta, CD ultimately has a mild, fairly limited effect on mental health, with some influence on depression, but none significantly on anxiety or stress. CD may act as a mild protective factor against depression, by operating through a reduced tendency to interpret experience events as distressing. Finally, adopting a theoretical approach to understanding depression as a function of negative cognitive states, supports the use of universal interventions aimed at helping the general population to adopt more positive cognitive styles with respect to interpreting their life experiences. Future research in the area of CD and mental health might help illuminate the prospective value of promoting certain positive aspects of chivalric value among youths, possibly through school-based interventions. Such interventions may help foster resilience and prevent the exacerbation of mental health difficulties in the future.

Biodata of Authors

Matthew Sciberras holds a Bachelor's degree in Health and Social Care Management, and is engaged professionally in the Maltese health care management sector. He carried out his undergraduate research on mental health among Maltese men.

Claire Abela has a background in psychology and education. She also holds an MSc in Mental Health Studies, specializing in child and adolescent mental health. She is affiliated with the Malta College of Arts, Science and Technology (MCAST), working as a Senior lecturer within the Institute of Community Services. Her research interests are related to Mental Health, to enhancing student well-being in Vocational Education and Training, to Children in out-of-home care and to Parental separation and divorce.

Matthew Muscat-Inglott holds a PhD in Educational Research & Development, and carries out research in educational, sociological and health related fields as part of his duties as a senior lecturer at the Institute of Community Services, Malta College of Arts, Science & Technology. ResearchGate link: https://www.researchgate.net/profile/Matthew-Muscat-Inglott

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