Gender-Related Schemas and Suicidality: Validation of the Male and Female Traditional Gender Scripts Questionnaires

MARTIN SEAGER
LUKE SULLIVAN
JOHN BARRY

Abstract

Background: The issue of whether gender-related attitudes underlie the sex difference in suicide has been relatively unexplored. This study sought to validate questionnaires measuring traditional male and female gender scripts in order to test the hypothesis that scores on these questionnaires predict suicidality.

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Methods: The responses of 348 women and 170 men were analysed using factor analysis and hierarchical multiple regression.
Results: After controlling for other variables, two male gender subscales predicted risk of suicidality (Fight & Win, P<.001; Mastery & Control, P<.042), and one female gender subscale predicted reduced risk of suicidality (Family Harmony, P<.003).
Conclusions: These novel findings have implications for understanding and predicting suicidality in men and women, and may be valuable in the clinical context.

Keywords: suicidality; gender; social script; sex difference; questionnaire validation.

Introduction

Although suicidal ideation is reported far more often by females than males[1] in general three to four times more men commit suicide than women (17 vs 5.3 per 100 000; ONS, 2012). This represents a large sex difference in behaviour, yet explanations based on gender differences have received surprisingly little research attention.

A Danish sample found that predictors of suicidal behavior were unemployment, retirement, being single and sickness absence.[2] In addition, in UK samples, other predictors of suicide are being aged over 45,[3] and deliberate self-harm, in both cases moreso in men than women.[4] Besides being male, another the leading predictor of suicide in men and women is mental illness.[5]

An exception to the general gender/suicide rule is China, where high rates occur in women, especially impulsive suicides in young women in rural areas.[6] This is said to be due to harsh economic and social conditions in these areas, and as the conditions have improved in recent years, so the female suicide rate has fallen.[7]

Despite the wealth of evidence showing that the strongest predictor of suicide is being male, there has been surprisingly little research exploring what it is about men that creates a vulnerability to suicide. The near absence of research on gender-based explanations for male suicide suggests that our culture has yet to become fully conscious of the possible influence of gender schemas in the suicide. There may be taboos around acknowledging male vulnerability[8] which impede a gendered exploration of suicide. Such taboos may be enculturated through unwritten rules and social scripts about what it means to be masculine, and how 'real men' are supposed to behave. If this is the case, then such rules themselves need to be the subject of careful research so that their influence may be understood. As the most fundamental step towards elucidating this problem, it is therefore necessary to hypothesise what form such deep-seated masculinity rules might take. The present research attempts to do just this by validating a working definition of what the rules of masculinity might look like and testing this in the general population. This research also tests a hypothesized set of rules of femininity that may act as a buffer against suicidality.

The aims of this study are to:
1/ Validate the two Gender Script Questionnaires and

2/ Test the hypothesis that the Gender Script Questionnaires will be related to suicidality

Materials and Methods

Design

This study is a cross-sectional online survey analysed using factor analysis, multiple regression and ANCOVA. The psychometric properties of the Traditional Gender Scripts were analysed using factor analysis with expectation maximization. Concurrent validity between the Traditional Gender Scripts and the Personal Attributes Questionnaire was assessed using Pearson's correlations.

The variables that predict the dependent variable (Suicidal Ladder scores) were analysed using hierarchical multiple linear regression. The main model consisted of demographic variables in the first block (e.g. Age and Gender), other background variables in the second block (e.g. Substance Abuse) and in the final block the Male Script scores and Female Script scores.

Variables

Dependent variable

The primary outcome measure is the Suicidal Ladder.[1] This is a 5-item hierarchical checklist of suicidality, with higher scores indicating more suicidality. The items range from 'Have you ever felt that life is not worth living?' (score = 1) to 'Have you ever made an attempt to take your life?' (score = 5). According to a review of short scales with high clinical validity, the Suicidal Ladder is one of the better scales available for measuring current suicidal severity.[9]

Predictor variables

Gender Script Questionnaire

Variables relevant to suicide were used: age, sex, presence of depression, previous suicide attempts, alcohol abuse, psychiatric problems, poor social support, plan for suicide, isolation from relations, poor health.

Control variables

Positive state of mind was measured using the Positive Mindset Index (PMI).[10] This scale consists of six items (happiness, confidence, being in control, emotional stability, motivation and optimism). The PMI shows good internal reliability (Cronbach's $\alpha = 0.926$) and good concurrent validity ($r = .678$) with the psychological subscale of the SF-36. The norm for the PMI is 3.30.

Personal Attributes Questionnaire (PAQ).[11] This scale assesses the degree to which participants identify with stereotypical gender identity (40 items). There are five subscales, each with eight 5-point

bipolar items. The two subscales most relevant to this study are the measures of stereotypically feminine traits (e.g. 'helpful to others'), and stereotypically masculine traits (e.g. 'very active'). This PAQ is not intended to measure immutable gender characteristics, but is used as a measure of abstract personality traits that are seen as gender-traditional.
Geographical region, substance use and other relevant variables was assessed from free text responses.

Participants

Participants were recruited between Oct 2012 and June 2013 from several websites, including the *Men's Health Forum*, *Psychology on The Net*, and *Men's Minds Matter*.

Ethical approval was granted by the University College London Graduate School Research Ethics Committee. Informed consent was given by the participants before filling in the questionnaire.

Exclusion criteria

i. Not completing the consent form
ii. Being under 18
iii. Not giving key information (gender, Suicidal Ladder responses).

Sample size and statistical analysis

The sample size required for questionnaire validation is a minimum of 5 participants per item.[12] Thus for 39 items (the final total of the Gender Script Questionnaires combined), a minimum of 195 participants was required. For multiple linear regression, thee sample size required if the model consists of nine predictorsis 50+8*m*, thus 122 participants were required in the present study.[13] Concurrent validity of the Traditional Gender Scripts was assessed by measuring the Pearson's correlation between the Traditional Gender Scripts and the PAQ. For concurrent validity, a correlation value of $r \geq 0.5$ is considered moderate.[14]

For multiple regression, variables were entered into the model if (a) there was a basis, either theoretical or from previous research, to hypothesise that it would contribute to suicidality, or (b) if the variable showed a significant difference between men and women (see Table 1).

Phase 1: Questionnaire Development

Development of Final Gender Script Questionnaires

Items for the hypothesised 'masculinity script' and its counterpart, the 'femininity script' were based upon three sources of evidence. Firstly, a wide qualitative examination of how the psychology of men and women have been portrayed throughout history in art, literature, culture and science was conducted.[8] From this examination a basic pool of script items was defined. This pool was modified from discussions with various groups, including professional psychologists across the NHS and workers at the Terence Higgins Trust. The final pool of items was selected and refined

through discussion amongst the three authors (MS, LS, and JB), phrased as questions, and 6-point Likert scales added. Through this process, items that formed the basis of the two questionnaires were derived: the *Male Script* with 20 items, and the *Female Script* with 19 items. The questionnaires were administered to the three authors. Suggestions for revisions were made e.g. clarification of phrasing.

The male script consisted of three domains: *Fight & Win* (e.g. 'When the team I support lose it really hurts'), *Provide-Protect* (e.g. 'I feel ashamed if I can't provide for my kids') and *Mastery & Control* (e.g. 'if you need help you are weak'). The female script consisted of three domains: *Be glamorous / attractive* (e.g. 'I feel more alive when I look attractive'), *Bear children* (e.g. 'I won't be truly happy until I have produced a child') and *Nurture children and family life* (e.g. 'Raising a happy family is my true goal in life'). Higher scores on the likert scale indicated more agreement with the item.

A factor analysis of the two scales was conducted to examine the factor structure of these questionnaires. In each case the factor analysis used Varimax rotation and Kaiser normalization, with extraction by principal components or maximum likelihood estimation, as appropriate. Extraction and retention of factors was based on visual examination of the scree plot and eigenvalues of > 1.0 were retained. The threshold for the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was 0.6.[13]

Cronbach's α and average inter-item correlations were assessed to measure the internal reliability of a questionnaire. The usual threshold for acceptability for Cronbach's α is 0.7. A factor loading threshold of 0.40 was applied to ensure reasonable strength of factors.[15]

Phase 2: Initial Validation

Initial Validation of Final Gender Script Questionnaires.

For the initial validation of the questionnaires, various suitable websites were contacted and invited to post an invitation to the survey on their website. Most sites agreed. Table 1 shows the demographic and other background characteristics of the participants.

Initial Validation Analysis

As a first step in validating final questionnaires, the construct validity of the questionnaire was tested by assessing differences in scores between groups who are known to be different in a relevant ways. The two groups used for this validation of the Traditional Gender Scripts were men and women. For this comparison, mean scores on the two questionnaires in the two groups were compared using independent groups t-tests. In each questionnaire, a higher score indicated greater identification with the script. All statistical analyses were carried out using SPSS statistical software for Windows, Version 21 (Armonk, NY: IBM Corp).

A further step in validating new questionnaires is in testing how much they are in agreement with existing validated measures measuring similar constructs. This is known as concurrent validity, and acceptable concurrent validity is indicated by a Pearson's correlation coefficient of 0.5 or more.[14]

The criterion by which the new questionnaires were measured was the masculine, feminine and masculine-feminine subscales of the PAQ.[11] Missing data were deleted pairwise, so that where a participant gave some answers but had not given responses on all items in the questionnaire, data for the responses they gave could be included in the analysis.

Results

67% (348 of 518) of the respondents were women. There were three transgender participants; this number was too small to use for statistical purposes, so these three participants were omitted from further analysis. Table 1 shows the demographic and other background characteristics of the participants.

Table 1. Demographic characteristics of the male (N = 160) and female (N = 340) respondents.

		Men	Women	Test statistic
Age, mean (SD)		42.2 (12.9)	36.2 (12.0)	t = 5.105*****
Socioeconomic background	*Management*	55 (32%)	95 (36%)	χ^2 = 3.095
	Intermediate	55 (32%)	142 (39%)	
	Manual	60 (35%)	123 (34%)	
Alcohol units weekly, mean (SD)		9 (5.3)	3.5 (2.1)	t = 3.081**
Ever been in trouble due to drink	*Yes*	56 (33%)	71 (20%)	χ^2= 11.19**
Currently on illegal drugs	*Yes*	13 (7.7%)	28 (7.8%)	χ^2 = 0.001
Others say I have a substance abuse problem	*Yes*	19 (11.2%)	30 (8.3%)	χ^2 = 1.112
Support from family[a]		2.62 (1.0)	2.44 (1.0)	t = 1.957
Support from friends[a]		2.37 (1.0)	2.39 (0.9)	t = -0.277
Quality of health at present[a]		2.84 (1.1)	2.38 (1.1)	t = 4.656*****
Ever diagnosed with mood disorder	*Yes*	97 (57%)	270 (78%)	χ^2 = 23.406******
In a relationship	*Yes*	111 (65%)	202 (56%)	χ^2 = 3.757
Quality of relationship[a]		2.59 (1.5)	2.96 (1.6)	t = -2.104*
Divorced	*Yes*	15 (8.8%)	60 (16.7%)	χ^2 = 5.902*

Live with partner	*Yes*	95 (56%)	149 (41%)	χ^2 = 9.930**
Live with a relation	*Yes*	24 (14%)	79 (22%)	χ^2 = 4.457*
Have children living at home	*Yes*	55 (32%)	111 (32%)	χ^2 = 0.001
In employment	*Yes*	111 (65%)	193 (54%)	χ^2 = 6.684**
Job satisfaction[a]		3.74 (1.4)	3.75 (1.4)	*t* = -0.101
Full time student	*Yes*	17 (10%)	57 (16%)	χ^2 = 3.228
How much father was present in childhood home[b]		3.55 (1.4)	3.58 (1.3)	*t* = -0.267
Victim of hate crime	*Yes*	36 (21%)	82 (23%)	χ^2 = 0.183
Victim of violence	*Yes*	88 (52%)	166 (46%)	χ^2 = 1.411
Age first became victim of violence		11.59 (8.1)	12.53 (8.4)	*t* = -0.858
Victim of sexual abuse	*Yes*	36 (21%)	133 (37%)	χ^2 = 13.515***
Age first became victim of sexual abuse		12.74 (7.6)	12.09 (8.0)	*t* = 0.444

* P<.05, ** P<.01, *** P<.001, **** P<.0001, ***** P<.00001, ****** P<.000001 (two tailed).

[a] On a 6-point scale where 1 represents worst outcome (e.g. least support, worst health, worst relationship, lowest job satisfaction).

[b] On a 5-point scale where 1 represents 'never present' and 5 represents 'always present'.

Development of Final Gender Script Questionnaires

Development of the Male Gender Script Questionnaire

The Male Gender Script Questionnaire consisted of 20 items. The stimulus questions were answered 6-point Likert scale from 1 = *Strongly Disagree*, to 6 = *Strongly Agree*.

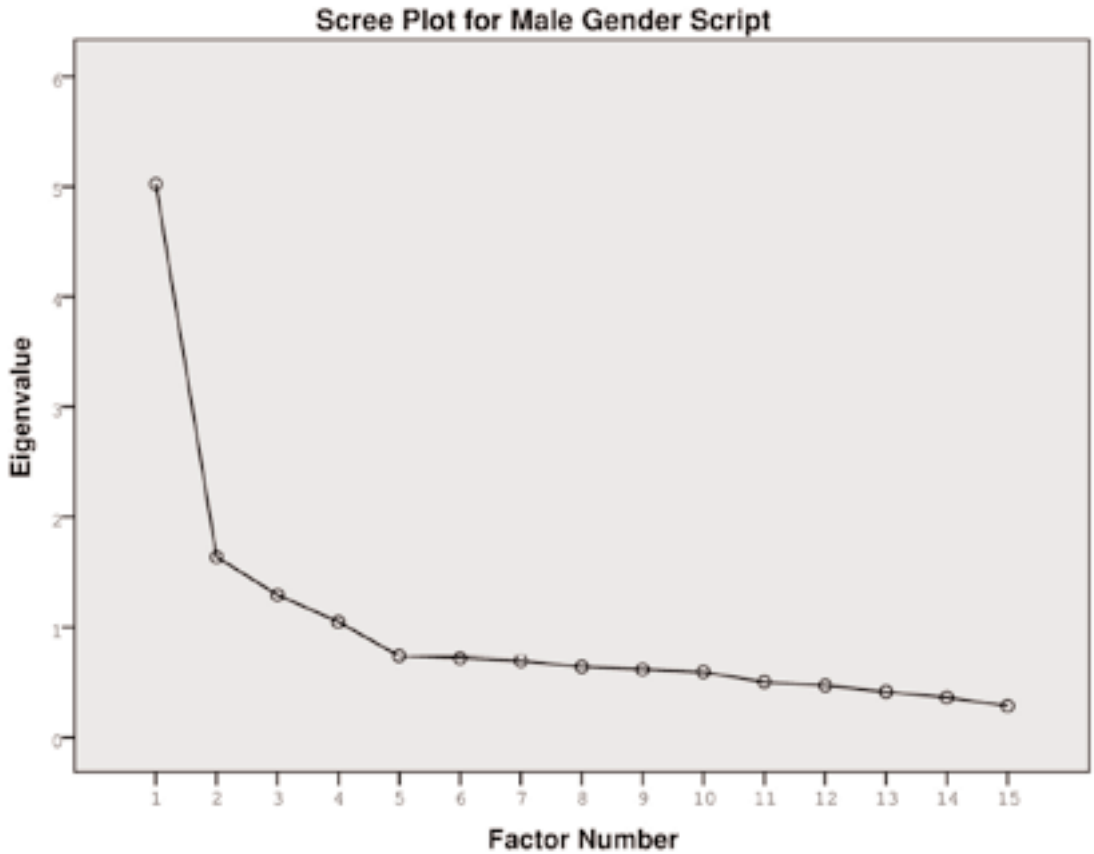
After incomplete responses were eliminated, there were 518 participants in this analysis, 348

women and 170 men. The maximum likelihood estimation resolved in six iterations. Together, these accounted for 42.77% of the variance in scoring after extraction. In order to reduce the influence of the large number of relatively weak items (five items with factor loadings <.4), the factor analysis process was repeated with the weak items removed from the analysis. This extraction resolved in five iterations and the four resulting factors (see scree plot, Figure 1) accounted for 47.99% of the variance in scoring after extraction. The observed KMO of 0.871 indicated sound underlying factors. Bartlett's Test of Sphericity was significant (χ^2 = 2363.617; *df* = 105; *P*<.000001) indicating good factorability of the correlation matrix. The factor loadings are shown in Table 2. The Cronbach's α reliability for all items was 0.862.

Table 2. The 15 items and their factor loadings for the Male Gender Script Questionnaire.

Subscale	**Item**	**Factor loading**
Fight & Win	It's important to get promotion or the best salary	.732
	In life it's important to keep ahead of the competition	.660
	The salary is the most important thing about a job	.628
	It's dog eat dog, so you have to be top dog	.589
	A big house or a big car shows that you're a winner	.522
	Being a breadwinner makes me what I am	.484
Mastery & Control	If you need help you are weak	.824
	You should be able to cope with problems on your own	.765
	It's important to be seen to be in control of your feelings	.616
	If you don't know the answer to a question you look foolish	.509
	Life is what you make it – if it goes wrong you've only yourself to blame	.480
Racing	If I pull up next to another car at a set of traffic lights I feel an urge to race	.986
	I don't like being overtaken on the roads	.410
Protect	Women and children should come first	.653
	If a burglar comes into our house it's me that should take responsibility for protecting the household	.455

Figure 1. Scree plot showing the loadings of the four Male Gender Script Questionnaire factors



Development of the Female Gender Script Questionnaire

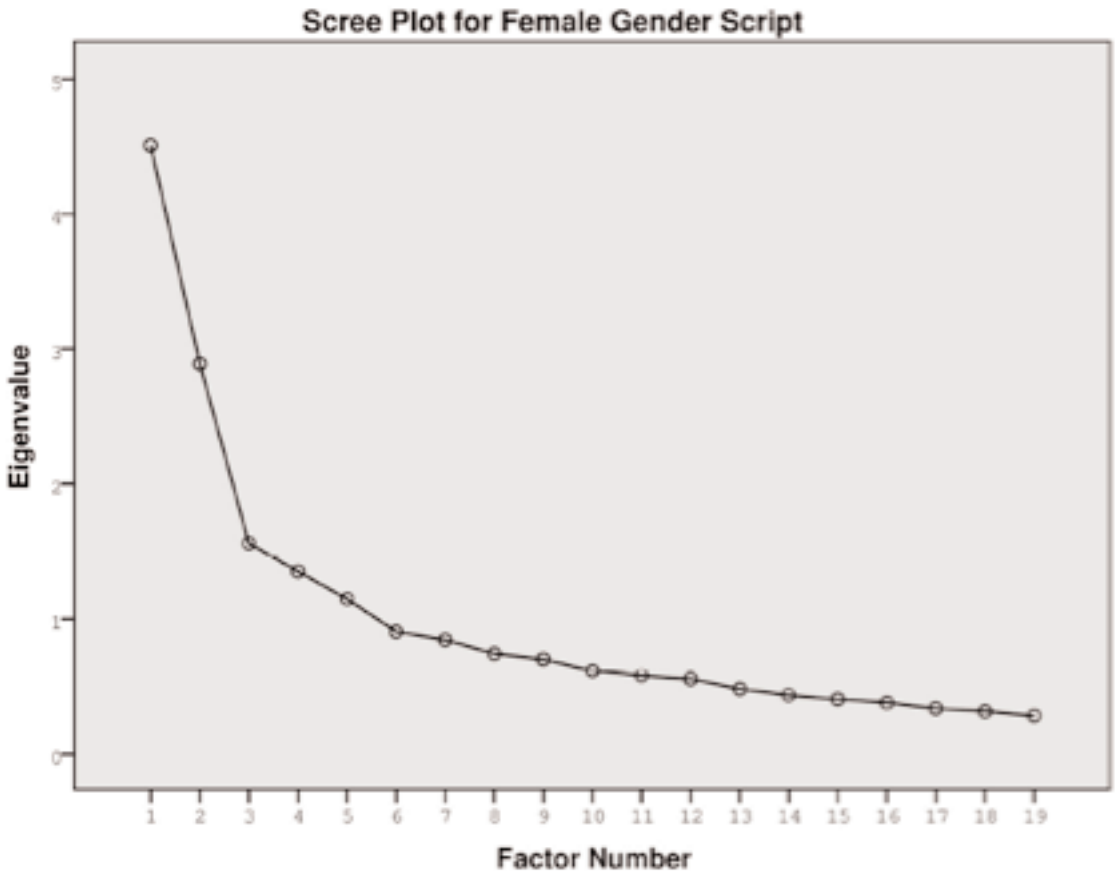
The Female Gender Script Questionnaire consisted of 19 items. The stimulus questions were answered 6-point Likert scale from 1 = *Strongly Disagree*, to 6 = *Strongly Agree*.

After incomplete responses were eliminated, there were 508 participants in this analysis, 347 women and 161 men. The maximum likelihood estimation resolved in eight iterations. Together, these accounted for 44.82% of the variance in scoring after extraction. One of the 19 items had a loading weaker than 0.4, and this was omitted from further analysis. The scree plot (Figure 2) shows that five factors were found. The observed KMO of 0.816 indicated sound underlying factors. Bartlett's Test of Sphericity was significant (χ^2 = 2739.617; *df* = 171; *P*<.000001) indicating good factorability of the correlation matrix. The factor loadings of the 18 included items are shown in Table 3. The Cronbach's α reliability for all items was 0.788.

Table 3. The 18 items and their factor loadings for the Female Gender Script Questionnaire.

Subscale	Item	Factor loading
Looks	I feel more alive when I look attractive	.710
	People should do whatever it takes to enhance or preserve their looks	.558
	I feel annoyed if I see someone who is more attractive than I am	.561
	I don't like to leave the house unless I have made sure that I look good	.556
	I feel that there is too much pressure on me to be attractive	.512
	People who are attractive have more advantages in life	.421
Fertility	No matter how successful you are at work, if you don't have children you will never really be happy	.752
	It is a law of nature that people should produce at least one child	.704
	An infertile person can't reach their full potential as a human being	.615
Family Harmony	Raising a happy family is my true goal in life	.683
	There is no greater joy than holding your own new born baby	.663
	I won't be truly happy until I have produced a child	.571
Parenting	Nobody can care for their children like the biological parent can	.627
	The mother and child have a special bond that can't exist between father and child	.489
	Children suffer by being put into day care	.442
	The importance of traditional family roles is overrated	.383
Family pressure	I feel that society unfairly pressures me to have children	.846
	Family members annoy me by putting pressure on me to have children	.607

Figure 2. Scree plot showing the loadings of the five Female Gender Script Questionnaire factors



Initial validation of the Male and Female Gender Script questionnaires

To test for known-groups validity, the four Male Questionnaire subscales and five Female Questionnaire subscales were compared between groups of men and women, controlling for any effect of age using ANCOVA. Table 4 shows that in six of the 11 variables, men and women scored significantly differently in the expected direction. These differences provide support for construct validity. Racing, Family Harmony, and the total score for the Female script had similar scores in both groups, but three variables scored in the opposite direction to that predicted: women scored non-significantly higher for Fight & Win and men scored significantly higher for Fertility and Parenting.

Table 4. Mean and SD scores of men (N=135) and women (N=284) on the Gender Script scales and subscales, controlling for the effect of age using ANCOVA.

Scale or subscale	**Gender**	**Mean**	**SD**	***F***
Fight & Win	Male	3.1437	1.02087	2.57
	Female	3.4310	1.17568	
Mastery & Control	Male	2.8605	1.03528	7.76**
	Female	2.6144	.94702	
Racing	Male	2.6556	1.26294	2.15
	Female	2.5370	1.21513	
Protect	Male	4.3074	1.14928	65.67******
	Female	3.3415	.98284	
Attractive	Male	3.1185	.77878	8.58**
	Female	3.4971	.89391	
Fertility	Male	2.1185	1.14494	7.21**
	Female	1.8333	1.04455	
Family Harmony	Male	3.2370	1.19969	0.61
	Female	3.3415	1.36948	
Parenting	Male	2.9500	.92629	5.30*
	Female	2.6259	.91452	
Pressure to have children	Male	2.3296	1.09129	5.43*
	Female	2.7289	1.36219	
Male Gender Script	Male	3.2418	.77078	13.63***
	Female	2.9810	.74384	
Female Gender Script	Male	2.7507	.67347	0.195
	Female	2.8053	.65189	
Positive Mindset Index (PMI)	Male	2.7211	.95184	13.59***
	Female	2.3574	.89992	
Suicidal Ladder Total	Male	6.5817	5.38469	4.87*
	Female	7.9662	5.23598	

* P<.05, ** P<.01, *** P<.001, **** P<.0001, ***** P<.00001, ****** P<.000001 (two tailed).

The Suicidal Ladder and Positive Mindset Index (PMI) were strongly negatively correlated (r = -.539, n = 508, p < .000001).

Concurrent Validity

A Pearson's *r* of 0.5 is indicates moderate concurrent validity.[14] Table 5 shows that the correlations between the Male and Female Gender Script scales and the PAQ subscales are relatively weak. The male and female PAQ subscales were significantly positively correlated ($r = .211$, n = 464, $P < .000005$, 2-tailed). The Male Gender Script and Female Gender Script were significantly positively correlated ($r = .517$, n = 445, $P < .0000005$, 2-tailed) (data not shown in Table 5).

Table 5. Correlations (Pearson's r values) between the Male and Female Gender Script scores and the Male and Female subscales of the Personal Attributes Questionnaire (PAQ) for all participants (men and women).

	PAQ Male	**PAQ Female**
Male Gender Script	-.162***	-.217****
Female Gender Script	-.139**	-.069

** P<.05, ** P<.01, *** P<.001, **** P<.0001 (two tailed).*

Validity of the Gender Script / Suicidality theory

This was tested using hierarchical multiple regression with the Suicidal Ladder as the outcome variable. There were three blocks: block 1 consisted of demographic variables, block 2 consisted of other relevant background variables, and block 3 was the gender script scores. The Adjusted R Square changed at each block from 8%, to 32%, to 38%. All tolerance and variance inflation factor (VIF) statistics were well within the acceptable parameters of >0.2 and below 1.0, respectively.[16, 17] Table 6 shows the contribution of the Gender Script subscales in the third block when the other variables that were entered were held constant.

Table 6. Third block of the hierarchical regression. The contribution of the nine Gender Script subscales to the Suicidal Ladder score, with other variables held constant, is shown at bottom of table.

Variable	***β***	***t***
Age	-0.114	-2.26*
Gender	0.017	0.348
Sociocconomic Class (SEC)	0.009	0.239
Ever been the victim of violence	-0.116	-2.60**
Ever been the victim of sexual abuse	-0.043	-0.96
Sexual Orientation	0.067	1.61
Alcohol in a usual week	0.010	0.25
Has drinking ever caused trouble with the law etc	-0.024	-0.60
Currently using any illegal drugs	-0.057	-1.50
Ever diagnosed with mood disorder	-0.238	-5.92****
Support from family	-0.117	-2.78**
Do you live with your partner	-0.046	-0.73
Do you live with a relation	0.001	0.03
Health quality at present?	-0.219	-5.13****
In a relationship at present	0.067	1.15
Are you divorced?	-0.014	-0.34
Number of children in household at present	-0.075	-1.77
In full time education	0.064	1.43
Employed	0.132	3.18**
Gender script subscales		
Fight & Win	0.161	3.36***
Mastery & Control	0.108	2.04*
Racing	0.059	1.37
Protect	0.073	1.58 *
Attractive	-0.010	-0.20
Fertility	-0.002	-0.04
Family Harmony	-0.148	-2.96**
Parenting	-0.031	-0.66
Pressure to have children	-0.036	-0.83

P<.05, ** P<.01, *** P<.001, **** P<.0001 (two tailed).

Discussion

This study tested whether the traditional Gender Scripts predicted suicidality in a large sample of men and women. The questionnaire development process produced a traditional male and a traditional female questionnaire that can be summarized as follows:

A man must:

1. Be a fighter and a winner
2. Be a provider and protector (especially of women and children)
3. Have mastery and control (over his emotions)

A woman must:

1. Be glamorous / attractive
2. Bear children
3. Nurture children and family life

Overall, there was support for the hypothesized scripts associated with masculinity and femininity. Table 4 shows that six of the nine factors were scored by men and women in the expected directions. For four of these six factors ("Mastery & Control", "Protect", "Attractive", and "Pressure to have children") the differences were statistically significant. The other two factors ("Racing" and "Family Harmony") were scored in the expected direction but non-significantly. Scores on two of the remaining three subscales, however, were in the opposite direction to that predicted, with men scoring significantly higher than women on "Fertility and Parenting" and women scoring non-significantly higher than men on "Fight & Win". As hypothesized, men scored significantly higher on the overall male script than women. However, there was almost no difference between men and women's scores on the overall female script.

One possible explanation for the unpredicted findings is that traditional gender scripts have been evolving and changing as a result of social and political changes over the last century. Alternatively, it may be that the scripts have underestimated the importance of certain values and norms shared by both men and women, specifically parenting and fertility for men and fighting and winning for women. Indeed "fertility and parenting" might be an important part of traditional masculinity in the sense that sexual potency and the fathering of offspring may be a key part of masculinity and masculine status, not to mention survival itself.

After the control of other variables in hierarchical regression, three of the eight Traditional Gender Script variables (Fight & Win, Mastery & Control and Family Harmony) remained significantly related to suicidality. Specifically, a greater endorsement of the Fight & Win and Mastery & Control scripts was associated with more suicidality, whilst a greater endorsement of Family Harmony items was associated with less suicidality. Women reported higher scores on the suicidal ladder than men, which supports previous research whereby women report or experience greater degrees of suicidal thinking. Women also showed less of a positive mindset than the men, a pattern which is in line with previous findings using the PMI. Both men and women scored below the PMI norm

of 3.30, with the mean score for women probably around the threshold for clinical levels of scoring.

From the perspective of clinical psychology, the findings of significant correlations between subscales and Suicidal Ladder scores have important implications for how we understand cognitions related to suicidality. A man or woman breaking the traditional rules might feel than an irreparable transgression has been made. Perhaps especially for those aspiring to traditionally masculine values, the pressures of not living up to the rigid demands[18] of the male script might, under certain conditions, cause extreme psychological distress. For example, someone who is the main wage earner in a household may feel a failure because of their belief that they should always be able to provide for their family. In contrast, according to the femininity script, someone who aspires to a happy family life more than a happy work life may lose their job but still find fulfillment in the home.

The degree of concurrent validity found in this study raises interesting questions about the nature of traditional gender scripts. Table 5 shows that although the correlations between the Gender Script scales and the PAQ subscales are statistically significant, the correlations are relatively weak. These findings therefore do not provide evidence of concurrent validity of the Gender Script scales with the PAQ, and indeed the findings might provide evidence of discriminant validity regarding the PAQ. This suggests that the Traditional Gender Script scales are measuring something other than what is being measured by the PAQ. The PAQ is a measure of typically masculine and typically feminine attributes or traits, whereas the Traditional Gender Script scales are measuring attitudes to prescriptive norms regarding specific aspects of life. The present findings highlight the complexity of gender constructs and suggest themes that future research may follow.

Strengths

A key strength of the present study is that it is one of the only studies which has examined suicide from a gender sensitive perspective. The Traditional Gender Scripts appear to have some good psychometric properties, for example, good internal reliability and adequate factor loadings. Known-groups validity was good for overall male script scoring, on which men scored significantly higher, but there was little sex difference in scoring on the female script. Similarly, although most of the subscales were scored in the predicted direction, some were not, notably women scoring significantly higher on Fight & Win, and men scoring significantly higher on Fertility and Parenting. These results probably demonstrate the complex patterns of how men and women today relate to traditional gender scripts. It is unlikely that the unexpected findings are a result of the low power of statistical tests, as all were sufficiently powered. It would be interesting to see whether scores would be more in line with the predicted direction if the survey were administered in a more traditional culture.

Weaknesses

The sample obtained was somewhat limited in its representativeness of the general population. Participants for the study were recruited from websites directed towards mental health themes. This may have led to a sampling bias in which we picked up more people with an interest in, or personal experience of, mental health problems. Furthermore, men are less likely to volunteer for studies of this kind than women, thus it is possible the men in this survey are less traditional in their views

than men who did not volunteer to take the survey. Also, the men who volunteered for this study of suicidality may identify less with traditional gender stereotypes by virtue of their experiences of distress. These sampling issues may have contributed to the unexpected findings on some subscales.

Suicide is a rare event and rare events by their very nature are difficult to predict. The survey measured suicidal ideation (a cognition rather than a behavior) on which women tend to score higher than men, and although suicidal ideation is a risk factor it is not necessarily predictive of actual suicide. Indeed we should not expect to see the sex difference in suicide replicated in a study of the relationship between traditional gender scripts and suicidal ideation. Whilst there is a correlation between Traditional Gender Scripts and Suicidal Ladder scores this is not necessarily predictive of actual suicide. Furthermore, although the Suicidal Ladder showed strong concurrent validity with the Positive Mindset Index suicidal ideation may be composed of various facets not assessed by the Suicidal Ladder such as fluctuations over time.

Future directions for research

The Male and Female Gender scripts need further validation. The scripts and the underlying theory should be further developed in light of the findings from this study. This might involve comparison with other measures of traditional/hegemonic masculine norms from the US, such as the Masculine Role Norms Inventory.[19]

Also future research might explore exactly how scripts lead to increased risk of suicide. For example, if someone strongly believes that they must have 'mastery and control' we might explore exactly which situations lead to greatest risk. Similarly, the context in which Family Harmony factor may be protective should be explored, for example, how much it relies on a sense of social support. Processes and pathways through which these scripts contribute to increased risk needs further investigation.

Clinical applications

There is some evidence to indicate that scripts associated with gender may be important in determining how people respond when faced with difficult times or increased cognitions and behaviour associated with an increased risk of suicide. Understanding how these scripts work could offer some support to clinicians when presented with clients who are suicidal. For example, this study found that the "Mastery & Control" aspect of male gender-specific thinking is connected with an increased suicidal thought. This means that clinical interventions could potentially be targeted towards helping men by either challenging this rule or applying it differently in their lives. For example, a man could be helped to see that by seeking help they are taking more control and attaining more mastery than if they fail to seek help.[20] Such an approach could help to reduce the sense of shame in those men who do seek help and could also influence the way that health services (statutory and voluntary) are advertised to the large numbers of men who are at risk of suicide but who might otherwise avoid seeking help. Equally, there is evidence from this study to show that it could be important when working with both men and women in therapy to assess the extent to which they are subject to the pressures of the "Fight & Win" rule in their lives. Deconstructing these traditionally male pressures in therapy might help both men and women feel more tolerant of their own vulner-

abilities and mistakes and thus in turn become less at risk of suicide.

Incorporating our understanding of gender into suicide training could also help to further develop clinicians' understanding of the importance of gendered differences in suicidal thoughts and behaviour. It could increase clinicians' effectiveness in intervening, thus reducing the chances that someone may take their own life. There may be opportunities to begin to develop preventative interventions that reframe suicide in relations to gender scripts to encourage more protective ways of responding to suicidal ideation.

Conclusions

Trying to understand the factors which lead to people taking their own lives is a challenge. However, gender remains the most obvious risk factor for suicide and yet is one of the least researched areas within the field. This study has taken some first steps in generating hypotheses for explaining these gender differences and in providing preliminary supporting evidence for these.

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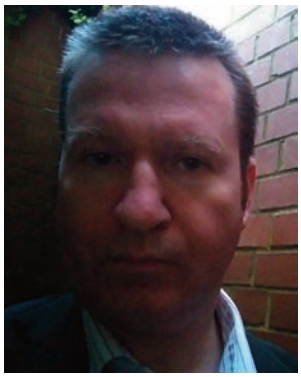

John Barry, PhD, MSc, BA, Chartered Psychologist and Research Associate at UCL Medical School, London.

Martin Seager is a consultant clinical psychologist and an adult psychotherapist. He is a clinician, lecturer, campaigner, broadcaster and activist on mental health issues. He studied at Oxford University, Edinburgh University and the Tavistock Clinic and worked in the NHS for over 30 years and was head of psychological services in two large Mental Health Trusts. He has been an honorary consultant psychologist with the Central London Samaritans since 2006 and is also a member of the Mental Health Advisory Board of the College of Medicine. He is also an activist on male gender issues and a founding member of a male psychology research group and chairs an annual conference on male psychology issues.

Luke Sullivan is a chartered clinical psychologist and creator and director of Men's Minds Matter. His specialist interest in men's mental health began in 2004 when he discovered how little there was in terms of services for men or information and research that considered the specific psychological needs and experiences of men and boys. He can be reached at luke@mensmindsmatter.com.