

Associations between disease burden and mental health outcomes in male and female patients with anogenital psoriasis: the mediating role of social avoidance and cognitive distraction coping

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INTRODUCTION & OBJECTIVES

Anogenital psoriasis has been associated with decreased quality of life (QoL), more sexual impairments and high rates of depression. However, the psychological mechanisms through which the burden of disease influences mental health outcomes are still unclear.

Objectives:

- to compare the disease burden, coping strategies, and mental health outcomes between male and female patients with anogenital psoriasis;
- to investigate the associations between disease burden and mental health outcomes, directly and indirectly via coping strategies;
- to test the moderating role of sex on these links.

MATERIALS & METHODS

Study design and patient cohort:

The study had a multicentre cross-sectional observational design. Patients were consecutively recruited in 4 dermatological centers in Germany (Hamburg, Bonn, Bad Bentheim and Mainz) between April 2020 and October 2022.

Inclusion criteria:

- Male or female aged at least 18 years
- Diagnosis of any type of moderate to severe psoriasis
- Ability to complete the questionnaires in German language
- Signed Informed Consent Form (ICF)

Exclusion criteria:

- Any comorbid condition which would place the subject at unacceptable risk participating in the study or confound the interpretability of study results

For this analysis, only the patients with current anogenital lesions, as defined by physicians' report, were selected.

Measures:

- ClinROs**
- Psoriasis Area and Severity Index (PASI; range 0 – 72 [max. severity])
 - Static Physician's Global Assessment of Genitalia (sPGA-G; range 0 [clear] – 5 [very severe])
- PROs**
- Dermatology Life Quality Index (DLQI; range 0 [not at all] – 30 [very])
 - Perceived Stigmatization Questionnaire (PSQ; range 0 [never] – 4 [always])
 - Relationship and Sexuality Scale (RSS; range 0 – 36 [max. sexual impairment])
 - Marburger Haut-Fragebogen (MHF; range 1 – 5 [more social avoidance coping])
 - Body Appearance Cognitive Distraction Scale (BACDS; range 0-5 [more cognitive distraction])
 - Patient Health Questionnaire (PHQ-2; range 0 – 6 [more depression symptoms])
 - General Anxiety Disorder (GAD-2; range 0 – 6 [more anxiety symptoms])
 - Dysmorphic Concern Questionnaire (DCQ; range 0 – 21 [more dysmorphic concerns])

RESULTS

Participants were 161 patients with anogenital psoriasis (64.6% male; age = 42.73 ± 13.43 years; PASI = 7.57 ± 6.88; sPGA-G = 2.30 ± 0.95).

Comparative analyses showed that women had significantly more sexual impairments, used more often social avoidance and cognitive distraction as coping strategies, and reported more symptoms of anxiety, depression and body dysmorphic concerns.

Table 1 | Comparison of patient-reported outcomes (PROs) of disease burden, coping strategies and mental health outcomes between male and female patients with anogenital psoriasis.

PROs of disease burden	Male	Female	F	p
	M ± SD	M ± SD		
QoL impairments [DLQI]	10.66 ± 7.40	11.38 ± 7.20	0.50	0.824
Perceived stigmatization [PSQ]	1.13 ± 0.54	1.19 ± 0.71	0.14	0.711
Sexual impairments [RSS]	18.53 ± 6.18	20.10 ± 6.88	4.51	0.035
Coping strategies	Male	Female	F	p
	M ± SD	M ± SD		
Social avoidance [MHF]	2.51 ± 1.06	2.92 ± 1.10	4.30	0.040
Cognitive distraction [BACDS]	1.50 ± 1.57	2.47 ± 1.64	13.35	<0.001
Mental health outcomes	Male	Female	F	p
	M ± SD	M ± SD		
Depression [PHQ-2]	1.93 ± 1.61	2.60 ± 1.85	4.40	0.038
Anxiety [GAD-2]	1.54 ± 1.46	2.23 ± 1.83	6.10	0.015
Dysmorphic concerns [DCQ]	7.24 ± 4.56	9.50 ± 4.91	6.64	0.011

F: Univariate analysis of covariance, including sPGA-G and regular sexual contact as covariates.

More QoL impairments were directly associated with more depression and indirectly associated with more dysmorphic concerns, via social avoidance, independently of sex.

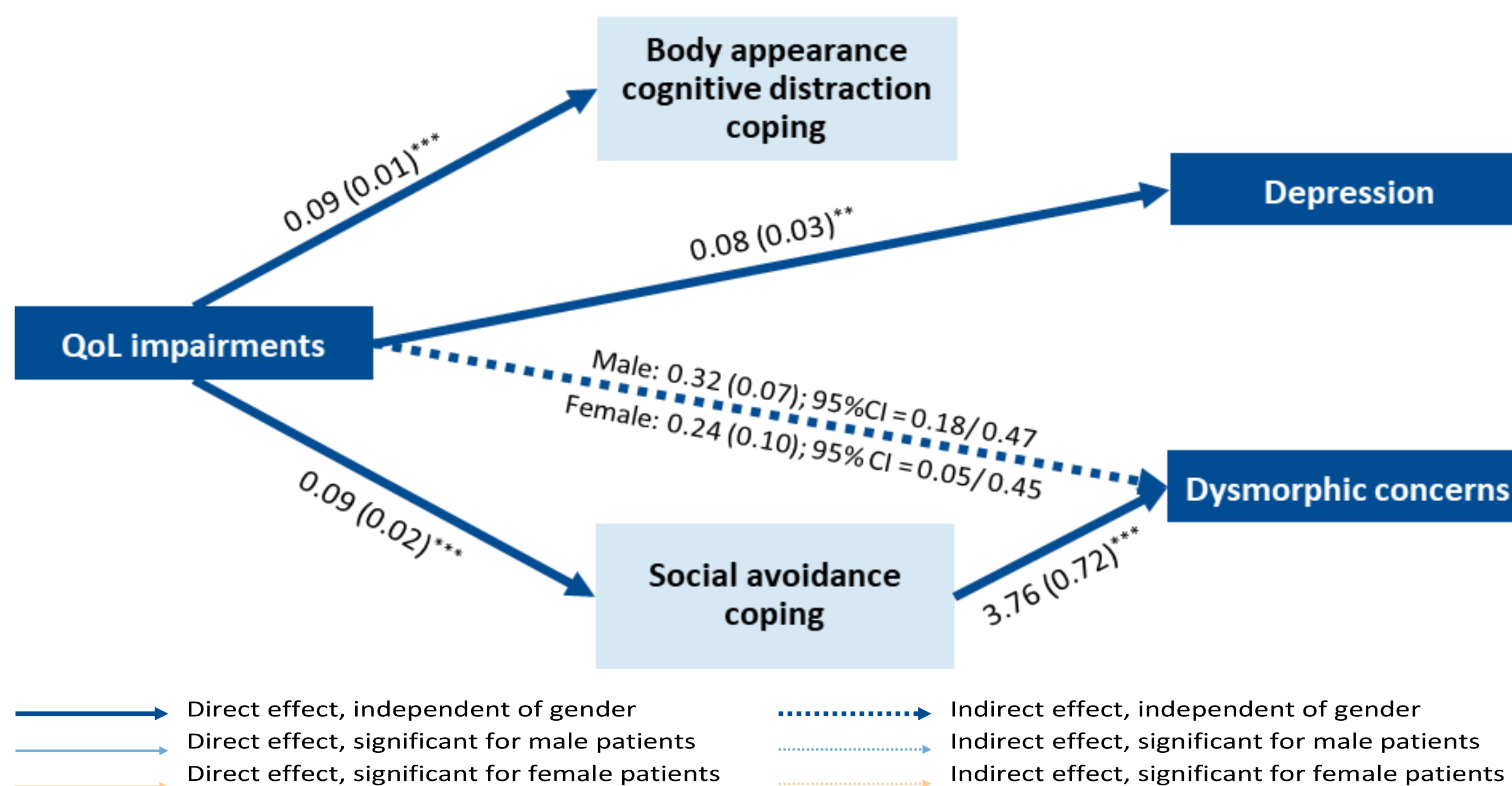


Figure 1 | Direct and indirect associations between QoL impairments and mental health outcomes, via coping strategies of social avoidance and cognitive distraction, moderated by sex.

Higher levels of perceived stigmatization were indirectly associated, via social avoidance, with more depression, independently of sex; with more anxiety, for male patients; and with more dysmorphic concerns, for both sexes but with stronger associations for men.

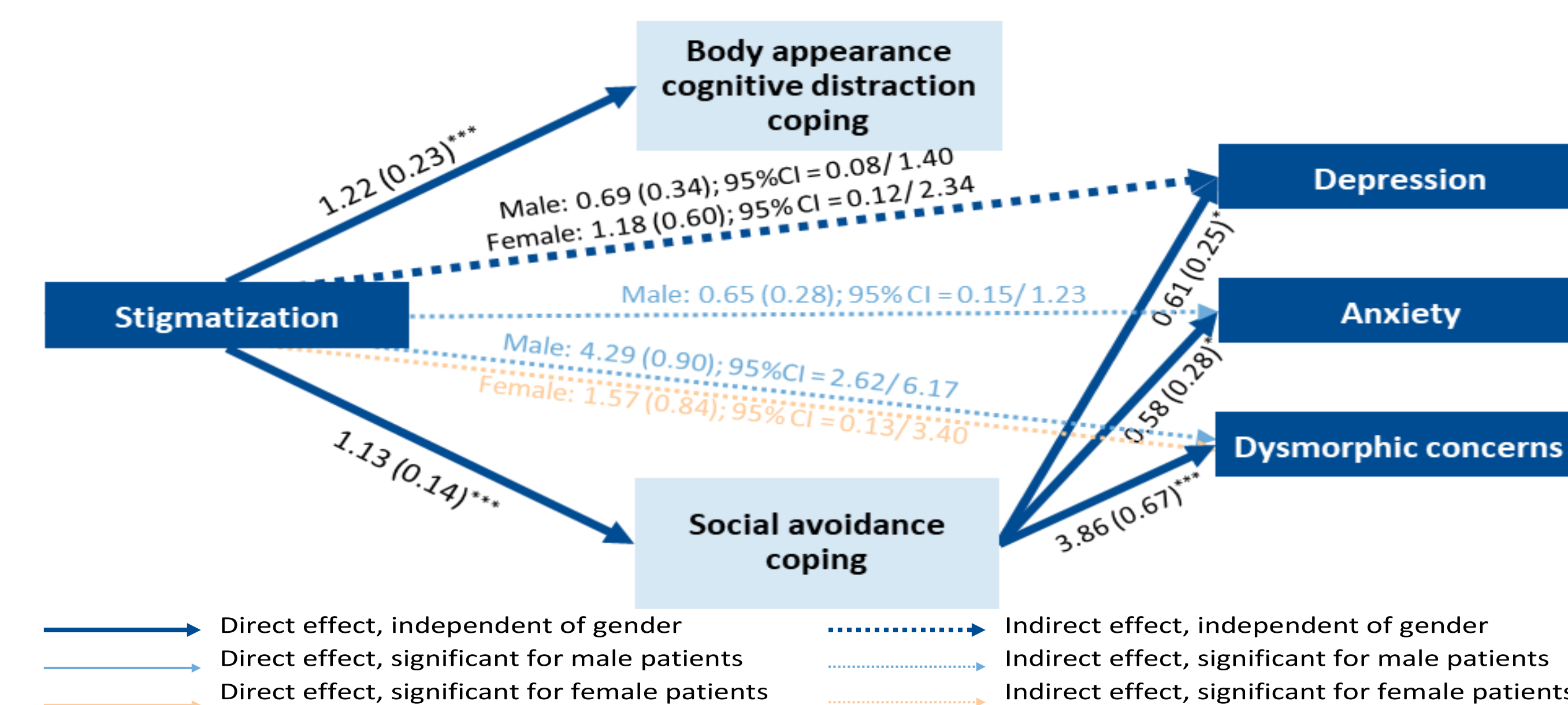


Figure 2 | Direct and indirect associations between perceived stigmatization and mental health outcomes, via coping strategies of social avoidance and cognitive distraction, moderated by sex.

More sexual impairments were indirectly associated, via social avoidance, with more depression and dysmorphic concerns, independently of sex, and with more anxiety, for men; and indirectly associated, via cognitive distraction, with more dysmorphic concerns, for women.

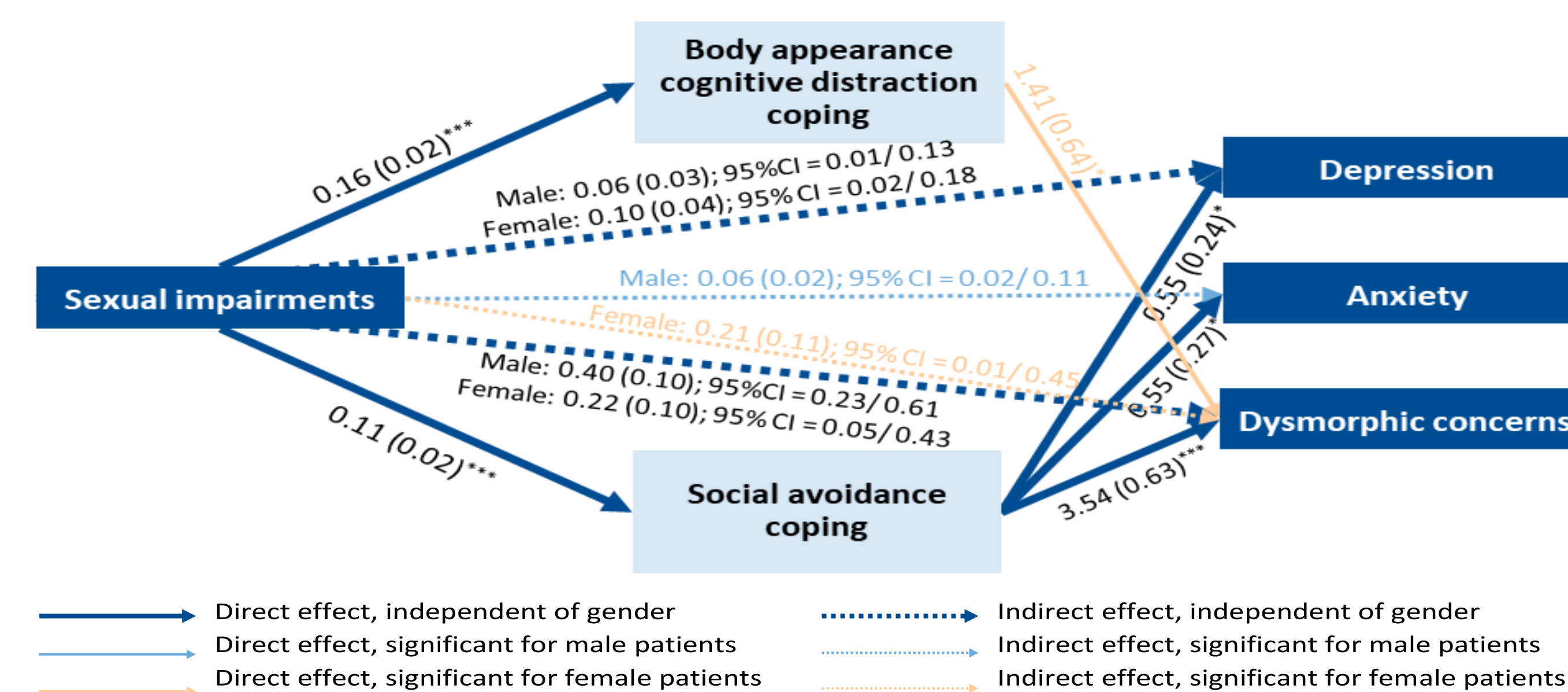


Figure 3 | Direct and indirect associations between sexual impairments and mental health outcomes, via coping strategies of social avoidance and cognitive distraction, moderated by sex.

DISCUSSION

Women with anogenital psoriasis were particularly vulnerable to poorer mental health outcomes. These were not only a direct function of disease burden, but also reflected sex-specific coping processes. The psychological coping mechanisms are modifiable variables that can be addressed in multidisciplinary patient-centered healthcare, in order to improve patients' overall health.