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# Predictors of Occupational Distress of Catholic Priests on the Eastern Seaboard of the United States

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## Abstract

With ever-increasing demands placed upon active priests in the United States, insight into protecting their mental health may help strengthen vocational resilience for individual priests. The purpose of this study was to examine the association of individual variables, workplace characteristics, and physical activity participation with occupational distress levels among Catholic priests. A 22-question survey consisting of a demographic questionnaire, the Clergy Occupational Distress Index, and the International Physical Activity Questionnaire was employed to collect individual variables, workplace characteristics, physical activity participation, and occupational distress levels of Catholic priests from the Eastern seaboard of the United States. Regression analyses showed that the number of years ordained ( $\beta = -.24$ ,  $p < .01$ ) and number of priests residing together ( $\beta = -.11$ ,  $p = .05$ ) were negatively associated with occupational distress levels. Collectively, these demographic, workplace, and physical activity variables accounted for about 10% of the variances in priest participant occupational distress scores. Findings suggest that novice priests may be more susceptible to occupational distress than veteran priests and that those living in multi-priest households tend to show lower levels of occupational distress. (Arch) dioceses may find the results of the current study useful for planning housing situations for priests or to better help novice priests meet the demands of their vocation.

**Keywords** Clergy · Occupational stress · Vocation · Workplace characteristics · Physical activity

## Introduction

Adult males in the United States have been reported to be susceptible to increased occupational distress and other mental health issues (Laditka et al., 2023). Occupational distress, also called occupational stress or job-related stress, is the final stage of the stress response epidemiology specifically attributed to workplace characteristics (Quick &

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Henderson, 2016). The stages of stress response include stressors (causes), biophysical reactions, and socioemotional changes (occupational distress). Due to its position as the last stage in the response, occupational distress is often used as a predictor of other health or behavioral outcomes such as illness (Chamoux et al., 2018), work absence (Duchaine et al., 2020), anxiety/depression (Mikkelsen et al., 2021), or turnover (Kachi et al., 2020). If left unchecked, occupational distress is often found to compound into burnout, especially in societies that have collective work ethics similar to those in the United States (Norlund et al., 2010). Therefore, importance must also be placed on understanding the stressors that may be deleterious to or mitigate occupational distress.

While often inadvertently omitted from general population stress-related research, religious leaders make up a sizable population among adults in the United States (Chiarlitti & Kolen, 2020). Many clergy in ministry within Christianity, Catholic priests most specifically, fall into the category of adult males. In fact, the occupational demands and lifestyle factors of Catholic priests (e.g., celibacy, rectory living arrangements, and multi-church assignments) are unique amongst even other Christian clergy (Hoge, 2006). Thus, the lack of Catholic priest-specific research may warrant targeted investigation. Occupational stress research on Protestant Christian clergy in recent years has increased throughout the United States. One reason may be that the high interpersonal demands placed on clergy by parishes or congregations can result in occupational distress leading to physical and mental health issues and an increased possibility of turnover (Hybels et al., 2022). Additionally, careers in which social support may be limited, such as the celibate Catholic priesthood where priests may live alone, may be especially impacted in terms of occupational distress by the nature of the workplace characteristics (Battams et al., 2014). Research on mixed samples of Catholic and Protestant clergy has shown an inverse association with age ( $\beta = -.10$ ,  $p < .01$ ) but not significantly with the number of years in active ministry ( $\beta = .012$ ,  $p = .60$ ) on occupational distress using the Clergy Occupational Distress Index (CODI; Webb & Chase, 2019). Essentially, according to this literature (Webb & Chase, 2019), as clergy age they are less likely to develop occupational distress.

As has been seen in research literature related to Protestant clergy (Hardy, 1990), Catholic priests may primarily view their role as an ordained minister of the Catholic Church as a sanctified work and a calling by God (i.e., vocation) to serve a divine purpose rather than only a career choice. Research shows that sanctification of work is a positive predictor for job satisfaction (Carroll et al., 2014) and that perceiving a calling is positively related to life satisfaction and job commitment (Duffy et al., 2013). Despite this vocational calling, clergy populations have been reported to have a similar rate of burnout compared to comparable secular professions that focus on service to others, such as social work and school teaching (Adams et al., 2017). Job-related eccentricities of the Catholic priesthood may also lead to eventual occupational distress. Examples of unique job experiences of Catholic priests include living in single-resident households and working in multi-role capacities, such as parochial vicar of a parish and chaplain of a school, pastor of a parish and (arch)diocesan vicar, and college faculty member and parish administrator. Additionally, the amount of sacramental work typically demands a higher proportion of time than in Protestant denominations; as a result, the intimacy of pastoral relationships can be curtailed by these responsibilities in large or multi-church parish settings. For Catholic clergy, active ministry begins directly after their ordination to the priesthood and for the most part continues every day until retirement, with some vacation and spiritual retreat time required by the Vatican. Dias's (2019) research, interestingly, has indicated a moderate inverse relationship between the length of ordained ministry of Catholic priests in Brazil ( $N = 242$ ) and emotional exhaustion ( $r = -.42$ ,

$p < .05$ ), thus indicating that less experienced Catholic priests seem to be at higher risk of occupational distress–related factors. Additional correlations were found between perceived social support and emotional exhaustion ( $r = -.33$ ,  $p < .05$ ), suggesting that priests experiencing more interpersonal support tend to report lower levels of emotional factors of occupational distress. However, workload factors such as social support and emotional exhaustion were neither statistically significant nor even moderately correlated with indications of occupational distress, which supported earlier studies on Catholic priests who see the priesthood as more of a vocational call than a job (Gautier et al., 2012). In the Catholic context, vocations are a calling from God to service of others (Hallman, 2022). Nonetheless, the nature of the Catholic priesthood in the scope of occupational research is both unique and underrepresented among Christian clergy. Additionally, the clergy abuse scandal not only had a negative effect on laity’s trust of Catholic priests but also left a unique stressor with which parish priests need to cope (Kline et al., 2008), so research on this population is highly warranted.

Physical activity participation represents a lifestyle factor that has been demonstrated to have some benefits associated with psychological well-being and therefore may have predictive utility on job-related stress. That is, physical activity has been found to have a moderating effect on general distress levels in adult populations (Füzéki et al., 2020). Additionally, in general adult populations, regular physical activity participation has been shown to be an inverse predictor of occupational distress as the cause of burnout ( $\Delta R^2 = .10$ ,  $\beta = -.28$ ,  $p < .01$ ) beyond that of demographic variables such as age (Gerber et al., 2020). The Canadian Society for Exercise Physiology (CSEP; Ross et al., 2020) and the United States Department of Health and Human Services (USDHHS, 2018) recommend that adults engage in a minimum of 150 min of moderate-to-vigorous physical activity (MVPA) per week for discernible health benefits. Other research indicates that 500–1000 metabolic equivalents (METs) minutes per week are another measurement suggested for healthy adults (Jeong et al., 2019). Priests have self-reported high levels of physical activity in recent research ( $M = 959$  MET minutes/week,  $IQR = 345\text{--}2206$ ; Webb & Chase, 2019). With the known association between engagement in regular MVPA and mental health variables (which could include occupational distress), physical activity participation could be a useful lifestyle factor to explore further within the Catholic clergy demographic.

In summary, minimal published literature has explored variables that can predict occupational distress in Catholic priests (Ruiz-Prada et al., 2021). With the ever-increasing demands placed upon the decreasing number of active priests in the United States, insight into protecting the mental health of Catholic priests may help strengthen vocational resilience and procure preventative measures from (arch)diocesan administration. Specifically, research examining the impacts of individual demographic variables such as years of ordained ministry, workplace characteristics such as parish assignments, and behavioral factors such as physical activity on occupational distress is lacking in the available literature. Therefore, the purpose of this cross-sectional study was to examine the association of individual variables, workplace characteristics, and physical activity participation with occupational distress levels of Catholic priests. If these modifiable factors play a significant role (particularly for workplace characteristics such as parish assignment and living arrangements and behavioral factors such as physical activity), personnel decisions at the (arch)diocesan level could help modify or reconfigure these variables to benefit Catholic priests.

## Methodology

Before commencing the study, the research team received an exemption from the college's human subject research committee and was approved to study adult populations by means of survey-collected, anonymous data. As part of the Qualtrics survey, priest participants indicated informed consent by selecting to continue the survey or not to participate in the survey. They were notified that their participation was voluntary, with the explicit statement that at any time they could end the survey. For participants who completed the survey in its entirety and voluntarily included a contact email address, four \$50 Amazon.com gift cards were raffled off. A priori power analysis was conducted to determine the minimum sample size for a regression analysis that has six predictors and to detect the effect size at or larger than  $f^2=0.15$ . With  $\alpha=0.05$  and power=0.95, the sample size would need to be at least  $n=146$ .

To complete the cross-sectional research study, the research team surveyed Catholic priests from 20 Roman Catholic (arch)dioceses and 13 Eastern Catholic (arch)eparchies on the Eastern seaboard of the United States. To be included in the study, the prospective participants needed to be (a) an ordained Catholic priest and (b) currently employed in active ministry. Eastern Catholic priests, though a small proportion of priests in the United States, were included in the sample as the majority of American Eastern Catholic priests are single, celibate men, thus sharing many similarities in lifestyles with their Roman Catholic brothers. While married men may be ordained to the priesthood in the Eastern rites, this phenomenon is still a minority, especially in the United States. Beginning in February 2023, surveys were distributed to Vicars for Clergy and individual priests. Data were collected over a period of four weeks, with two reminders sent by the lead author. We had in total 330 participants who were qualified and provided completed data for study, representing just under 10% of the potential total population of the Catholic priests serving in the Eastern seaboard region of the United States. The researchers searched publicly available contact information and shared the participant recruitment information for the study; however, the researchers had no personal relationships with the (arch)diocesan hierarchy that may have impacted the priests' willingness to participate in the study. Priest participants ( $N=330$ ) for the study were on average 51.4 ( $SD=14.04$ ) years old and had been ordained for a mean of 21.5 ( $SD=14.48$ ) years. The majority of priests that completed the survey (86.1%, 95% CI [82.1, 90.0]) categorized themselves as White/non-Hispanic ( $n=284$ ). Other pertinent demographic information collected in the survey can be seen in Table 1.

## Instrumentation

Data were collected using a demographic questionnaire, a self-reported physical activity questionnaire, and an occupational distress index geared specifically towards clergy populations. The survey consisted of a total of 22 questions and was completed by priest participants in a median time of just under 10 min. The following is a description of each portion of the survey.

**Demographic and workplace characteristics questionnaire** To elicit information pertaining to participant demographics and workplace characteristics, the research team carefully created and utilized a questionnaire with single-item questions designed specifically for a sample population of priests. Made up of almost completely celibate males, Catholic priests

**Table 1** Demographic Characteristics of Catholic Priest Participants

	<i>n</i>	% [95% CI]
Ethnicity/Race		
White, non-Hispanic	284	86.1% [82.1, 90.0%]
Minority	46	13.9% [10.0, 17.9%]
Age Category		
< 30 years	12	3.6% [1.8, 5.8%]
30–39 years	77	23.3% [18.8, 28.2%]
40–49 years	57	17.3% [13.3, 21.5%]
50–59 years	72	21.8% [17.6, 26.7%]
60–69 years	81	24.5% [20.3, 29.4%]
≥ 70 years	31	9.4% [6.4, 12.7%]
Years Ordained		
1–10 years	99	30.0% [24.8, 35.8%]
11–30 years	133	40.3% [35.2, 45.7%]
> 30 years	98	29.7% [25.2, 34.5%]

are a unique subsample both in terms of adult males and Christian clergy. Demographic information collected included participant age, total years as an ordained priest, and ethnicity. Workplace information questions included how many roles they were expected by the bishop to fill in their current assignment, how many churches (or individual parishes) the priest participant was assigned, and how many priests (including themselves) were living within the same rectory or household. Due to the unique nature of the Catholic priesthood, priests are sometimes assigned by their bishop to a placement that has multiple church buildings within one jurisdiction. While 65.2% of priests surveyed stated that their parish assignment consisted of only one church building, 20.0% indicated that they ministered within an assignment in which there were two or more churches (see Table 2). Additionally, living situations of Catholic priests are different than their non-celibate Protestant clergy

**Table 2** Workplace Characteristics and Physical Activity Adherence of Catholic Priest Participants

	<i>n</i>	% [95% CI]
(Arch)diocesan Roles		
One role	285	86.4% [82.4, 89.7%]
Multiple roles	45	13.6% [10.3, 17.6%]
Churches within jurisdiction		
Non-parish assignment	16	4.8% [2.7, 7.3%]
One church	215	65.2% [60.0, 70.3%]
Two churches	65	19.7% [15.5, 23.9%]
≥ Three churches	34	10.3% [7.3, 14.2%]
Priests in the Household		
One priest	141	42.7% [37.3, 48.5%]
Two priests	102	30.9% [25.8, 36.1%]
≥ Three priests	87	26.4% [21.5, 30.9%]
MVPA Recommendations		
Does not meet	189	57.0% [51.2, 62.1%]
Meets	142	43.0% [37.9, 48.8%]

counterparts. Of the priest participants surveyed, 42.7% live in a single-priest household, meaning they live by themselves. Historically, (arch)diocesan priests in the United States have lived with lay individuals such as housekeepers; however, within the past half-century this practice has almost disappeared. Thus, single-priest households are synonymous with single-occupancy residencies.

**Clergy occupational distress index (CODI)** While new job-related distress instruments such as the Occupational Depression Inventory (Bianchi et al., 2023) are becoming popular in occupational distress research, the research team decided that a job-specific assessment tool was important to utilize for the current study. Frenk et al. (2013) CODI instrument was chosen based on its succinct five-item battery that has been used previously among clergy populations (Carroll et al., 2022; Shaw et al., 2021; Webb & Chase, 2019). These five items address the experiences of participants over the past year in relation to their ministry and the parish in which they minister. Original terminology from the survey was changed to better reflect verbiage more commonly used by the strictly Catholic audience sampled (e.g., “congregation” to “parish”). Questions asked of priest participants are as follows: “Over the past year, how often have...” (a) “the people in your parish made too many demands of you?” (b) “the people in your parish been critical of you and the things you have done?” (c) “you experienced stress as a result of dealing with parish members who are critical of you?” (d) “you felt lonely or isolated in your work?” and (e) “you experienced stress because of the challenges you have in this parish?” To answer the questions, a frequency Likert scale was used that ranged from 1 (*never*), 2 (*once in a while*), 3 (*fairly often*), to 4 (*very often*). The scores were added cumulatively; a minimum score of 4 indicated minimal occupational distress and a maximum score of 20 indicated heightened occupational distress. The CODI items had been used independently in previous research by Pulpit and Pew (Carroll et al., 2022) and the Church Benefits Association (Research Services, Presbyterian Church (U.S.A.), 2009) and were found to be valid and reliable when used as a combined battery (Cronbach  $\alpha = .77-.82$ ) by Frenk et al. (2013).

**International physical activity questionnaire short form (IPAQ-SF)** The International Physical Activity Questionnaire—Short Form (IPAQ-SF) was utilized to collect physical activity data from priest participants. A seven-item questionnaire, the IPAQ-SF has been used to measure self-reported levels of engagement in MVPA and light physical activity and estimated accumulated sedentary time from the week before completing the assessment. Per the USDHHS (2018) and CSEP (Ross et al., 2020) recommendations, participant MVPA in minutes was totaled and coded as either “meeting” or “not meeting” 150 min/week. Webb and Chase (2019) have used the IPAQ-SF in their research on Protestant and nondenominational Christian clergy. Therefore, the research team chose to use the assessment tool for the Catholic priest population since the IPAQ-SF has been validated and deemed reliable for use with various adult populations (Spearman  $r = .43-.56$ ) (Cleland et al., 2018).

## Data analysis

After listwise removing invalid or missing responses ( $n = 10$ ) during data screening, a final sample size of wholly completed responses was determined ( $N = 330$ ) and used for data analyses. Categorical data (such as individual demographic variable ethnicity and age group) and workplace characteristics (such as parish assignment and diocesan role) were



analyzed using frequency analysis. For physical activity participation, the counted MVPA (in minutes) was a ratio variable, and then it was recoded based on whether participants met the recommended guideline as categorical values. The research team made use of the Statistical Package for the Social Sciences (SPSS, Ver. 27, IBM; Armonk, NY, USA) to analyze all data. Shao and Tu's (1995) bias-corrected, accelerated bootstrap 95% CIs were estimated to simulate 1,000 similar samples. The alpha level for statistical significance was set at  $p \leq .05$  for all statistical analyses.

First, descriptive and frequency analyses were conducted to examine central tendencies of participant demographics, including age, years of ordination, number of churches within priestly jurisdiction, number of priests living within the same household, and estimated weekly engagement in MVPA. Additionally, descriptive analyses were conducted on each of the five items of the CODI to compare with previously published national-level research (Carroll et al., 2022). The researchers then conducted Pearson correlation analysis to examine the directional associations between the independent variables and CODI scores that were ratio variables. Correlation strengths were interpreted using Dancy and Reidy's (2007) categorizations for psychology-related research. Lastly, hierarchical regression analysis (in general linear modeling) was conducted to test for associations between three blocks of grouped variables (demographics, workplace characteristics, and physical activity) and CODI scores. Specifically, the first block used demographic variables of ethnicity and years since ordination as the predictor variables. In the second block, workplace characteristics (number of roles currently assigned, number of churches within assigned jurisdiction, and number of priests living in the same household) were used as predictor variables. The third block used weekly MVPA engagement as the final predictor variable.

## Results

Our sample of priests had been ordained for an average of 21.5 ( $SD = 14.48$ ) years. In addition, 86.4% ( $n = 285$ ; 95% CI [82.4, 89.7%]) of priest participants reported having only one assigned role in their current placement, while 13.6% ( $n = 45$ ; 95% CI [10.3, 17.6%]) reported that the (arch)diocese had assigned them two or more administrative roles concurrently (see Tables 1 and 2). Only 43.0% ( $n = 143$ ; 95% CI [37.9, 48.8%]) of priests that responded to the survey indicated that they met the Centers for Disease Control's recommendation of engagement in at least 150 min/week of MVPA. Results for individual CODI items can be seen in the Appendix; however, regarding the CODI scores, participants reported a mean of 10.70 ( $SD = 3.04$ ).

Preliminary analyses were conducted to ensure assumptions of normality, linearity, and homoscedasticity were not violated. Regression analysis is generally robust with regard to small violations of these assumptions. Additionally, the correlations amongst the predictor variables (age, ethnicity, years ordained, number of roles, number of churches, number of priests in the household, and MVPA) included in the study were examined and are presented in Table 3. Few noteworthy correlations were found between demographic, workplace characteristics, and physical activity variables and individual items on the CODI instrument. Participant age and years of ordination were strongly correlated ( $r = .87$ ); thus, they were deemed confounding variables due to collinearity. In response, age was removed as a predictor variable from subsequent analyses as suggested by Tabachnick and Fidell (2018). Years of ordination was significantly correlated with "number of churches within jurisdictions" ( $r = .15$ ) and CODI scores ( $r = -.28$ ), though the correlations were weak



**Table 3** Pearson Correlations Between Demographics, Workplace Characteristics, and Physical Activity and CODI Scores of Catholic Priest Participants

Predictor Variables	Pearson <i>r</i>					
	Age	Years Ordained	# of Roles	# of Churches	# of Priests in Household	MVPA
Years Ordained	.87*	–	–	–	–	–
# of Roles	–.03	.02	–	–	–	–
# of Churches	.14*	.15*	.05	–	–	–
# of Priests in Household	–.03	–.02	–.08	–.06	–	–
MVPA (minute)	–.05	.02	.03	.03	< –.01	–
CODI Score	–.27*	–.28*	.08	–.02	–.11	–.11

\* $p < 0.05$ 

(Dancey & Reidy, 2007). There were no other statistically significant correlations between predictor variables or CODI scores.

Based on hierarchical regression analysis results and as can be seen in Table 4, the first model (predictors: ethnicity and years ordained) was significant ( $F_{2,327} = 11.61$ ,  $p < .01$ ,  $R^2 = .07$ ). The only predictor variable in the first model to indicate statistical significance was number of years ordained ( $\beta = -.23$ ,  $p < .001$ ). The second model (predictors: model 1 plus number of roles, number of churches, and number of priests in household) indicated that the predictor variables of years ordained ( $\beta = -.24$ ,  $p < .01$ ) and number of priests in the household ( $\beta = -.11$ ,  $p = .04$ ) were statistically significant. However, significant improvement was not indicated above and beyond the first model ( $\Delta F_{3,324} = 1.94$ ,  $p = .12$ ,  $\Delta R^2 = .02$ ). The final model (predictor: models 1 and 2 plus MVPA) again indicated that the predictor variables of

**Table 4** Hierarchical Regression of Criterion on Predictor Variables of CODI Score of Catholic Priest Participants

	$\Delta R^2$	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
Model 1 ( $\Delta F_{2,327} = 11.61$ , $p < .05$ )	.07	11.62	.77		15.09	< .01*
Ethnicity/Race		.75	.48	.09	1.58	.12
Years Ordained		–.89	.21	–.23	–4.17	< .01*
Model 2 ( $\Delta F_{3,324} = 1.94$ , $p = .12$ )	.02	12.03	1.13		10.68	< .01*
Ethnicity/Race		.69	.48	.08	1.45	.15
Years Ordained		–.92	.22	–.24	–4.30	< .01*
# of Roles		.48	.48	.05	1.01	.32
# of Churches		–.04	.22	–.01	–0.20	.84
# of Priests in the Household		–.41	.20	–.11	–2.0*	.04*
Model 3 ( $\Delta F_{1,323} = 2.91$ , $p = .09$ )	.01	12.20	1.13		10.81	< .01*
Ethnicity/Race		.67	.48	.08	1.41	.16
Years Ordained		–.93	.21	–.24	–4.33	< .01*
# of Roles		.55	.48	.06	1.15	.25
# of Churches		–.04	.22	–.01	–0.20	.85
# of Priests in the Household		–.40	.20	–.11	–1.98	.05*
MVPA (minute)		–.41	.33	–.10	–1.70	.09

\* $p \leq .05$

years ordained ( $\beta = -.24, p < .01$ ) and number of priests in the household ( $\beta = -.11, p = .05$ ) were statistically significant. The MVPA variable was borderline yet not statistically significant at the .05 level ( $\beta = -.09, p = .09$ ), although the model did not show significant improvement above and beyond the previous models ( $\Delta F_{1,323} = 2.91, p = .09, \Delta R^2 = .01$ ). Post hoc tests were conducted to detect curvilinear (such as quadratic, exponential) relationships between the predictor and CODI scores and did not yield significant results. In summary, demographic information, workplace characteristics, and MVPA collectively explained about 10% of the variances in CODI scores of the Catholic priests sampled.

## Discussion

The current study was designed to examine the association of demographic variables, workplace characteristics, and engagement in regular MVPA with occupational distress of Catholic priests on the Eastern seaboard of the United States. Recent research efforts regarding occupational distress and Christian clergy have been increasing; however, Catholic priests in particular are notably unrepresented in the literature despite their unique qualities among clergy. Therefore, the research team has sought to address gaps in the current occupational distress literature by reporting on a sample consisting entirely of Catholic priests.

The research team was mostly interested in understanding the association of three groups of factors with occupational distress levels of the participants. Interestingly, priest participants who indicated longer durations of ordained ministry were significantly less likely to report increased levels of occupational distress than their more novice counterparts. These findings largely conflict with previously published research on Protestant and Catholic clergy that have found a positive association, though not statistically significant, between ministry longevity and occupational distress (Webb & Chase, 2019). Our findings are consistent with Dias (2019) among Brazilian clergy. Because Webb and Chase (2019) include age in their model, which is typically correlated with years of ordained ministry, it is likely that both age and years of ordained ministry were confounders in their model. It is also possible that the large range for number of years ordained could have masked generational differences; for example, the older generation may have been more resilient due to past experiences or training. This may seem counterintuitive, as responsibilities and expectations tend to increase as clergy advance in years of service; however, veteran priests may also have learned coping mechanisms or more efficient interpersonal habits compared to priests who were more recently ordained. Alternatively, priests who experience high levels of stress may leave active ministry, which could account for this variance. Qualitative interview inquiry focused on the lived experience of priests representing multiple ordination ranges may help future researchers gain better insight into the inverse association between years ordained and CODI scores.

Demographic variables in the current study were chosen because of their commonality with previous CODI research. In the current study, age ( $M = 51.45$  years old) demographics were strikingly similar to three recent studies that also included Catholic priests in their samples of clergy (see Appendix). Participants in the Pulpit and Pew study (Carroll et al., 2022) had a mean age of 51.02, in Webb and Chase (2019) had a mean age of 51.90, and in Shaw et al. (2021) had a mean age of 52.52 years old. Likewise, the mean total years of ordained ministry ( $M = 21.50$ ) closely resembled those in the same studies ( $M = 21.09, M = 17.70, \text{ and } M = 22.49$ , respectively). The similarity in demographic variables such as age and years of ordinations seem to reflect the continuous publication of data concerned with aging clergy populations in Catholic and Protestant ranks. Additionally, the similarity

between the current study and recent CODI-related studies helps to strengthen the conclusion that the findings are not outliers.

In terms of occupational distress scores based on individual CODI items, the investigative team again found remarkably similar means to recent occupational distress research that included Catholic priests within their data collection (Carroll et al., 2022; Shaw et al., 2021; Webb & Chase, 2019). However, as can be seen in the Appendix, the mean scores for items 3 ( $M=1.97$ ) and 4 ( $M=2.02$ ), and 5 ( $M=2.43$ ) in the current study were slightly lower than those in the other studies that reported scores (Carroll et al., 2022; Shaw et al., 2021; Webb & Chase, 2019). Although the differences in individual CODI item score means are small, the CODI total mean ( $M=10.70$ ) was slightly lower than all three other studies, indicating that the Catholic priests within this specific sample were potentially less affected by occupational distress than previous Protestant samples. Discrepancies in CODI scores may be due to differing regions, Christian denominational variance, or a multitude of other methodological factors; thus, more research or data analysis needs to be conducted independently on clergy from Catholic and Protestant denominations to identify more data-driven conclusions.

Contrary to secular career research indicating the statistically significant positive relation between external job demand factors and CODI scores (Gerber et al., 2020), the current study found no significance of the number of assigned roles placed on priest participants and its impact on occupational distress levels. This absence of statistical significance may be in accord with Gautier et al.'s (2012) postulations that priest populations tend to see themselves living out a vocation rather than just working a job. When looking at the unique workplace characteristic variable of number of priests living in the same household, however, an inverse association was found that seems to be in congruence with Dias's (2019) correlational research on social support of priests. The findings indicate that Catholic priests that live in community with one or more other priests are likely to report lower levels of occupational distress. With the majority of priest participants reporting living in one-priest rectories (42.7%), (arch)diocesan administration may want to consider ways to build living communities for their priests. Some (arch)dioceses have experimented with housing priests assigned at different parishes within a reasonable distance together under one roof; however, this may only be logistically and economically feasible for priests in urban or suburban settings. Additionally, Eastern (arch)eparchies may want to explore housing their priests (who often are assigned to parishes far from other Eastern priests) with Roman (arch)diocesan priests.

Lastly, physical activity participation as measured by MVPA approached statistical significance as a predictor of occupational distress for Catholic priests. As mentioned previously, earlier research on the physical activity levels of priests has indicated high levels of self-reported MVPA (Webb & Chase, 2019). In contrast, the majority (57.0%) of priest participants in the current study actually indicated by their responses that they did not meet the 150 min/week mark suggested by the USDHSS (2018) and the CSEP (Ross et al., 2020). While Tucker et al. (2011) aver that overestimations of physical activity are common among self-reported measures of American adults, the high percentage of participants not meeting recommendations in the current study may have indicated that these Catholic priests may have been more accurate in their estimates than general populations. Even so, future researchers may want to use more objective measures of physical activity, such as accelerometers.

## Limitations and recommendations

Certain limitations regarding the current study should be addressed. The Catholic priests represented in the current study ( $N=330$ ) accounted only for approximately 9% of the prospective sample that received the survey instrument. Recent research involving predominantly Protestant clergy (Rogers, 2023) had a similar response rate. Lack of (arch)diocesan support for distributing the study forced the research team to recruit participants through individual emails without having any discernible connection to the prospective priest participants. Gaining support from administration at the (arch)diocesan level, such as the Vicars for Clergy or even the bishops, may be a useful endeavor for future researchers interested in soliciting larger samples of data from Catholic priests.

Additionally, the investigative team used a self-report assessment tool for data collection. Self-reported survey methodology may be subject to bias related to priest participant effect regarding mental health (Colombo et al., 2020); however, the research team did not complete the current study through any Church entity, which may have moderated any potential recall bias to answer in a socially desirable fashion. Related to the impact of years of ordained ministry, there could be generational differences that were masked by age. This would need to be verified through longitudinal studies. Additionally, the IPAQ-SF, a self-reported physical activity data collection tool, was used by the research team because of its simple yet valid and reliable questioning technique. It is appropriate to recognize that self-report instruments such as the IPAQ-SF are susceptible to participant overestimation and error, more so than objective physical activity collection devices such as accelerometers (Sallis & Saelens, 2000; Tucker et al., 2011).

## Conclusion

The current study adds to the understanding of predictors of occupational distress among Catholic priests. Data from this research seem to indicate that novice priests may be able to benefit from the mentorship of more experienced priests early in their ordained ministry. Additionally, community living arrangements where priests can be housed in multi-priest rectories may help to mitigate occupational distress. While no statistically significant associations existed between MVPA and occupational distress of Catholic priests in this study, the percentage of priest participants indicating they did not meet MVPA recommendations should be addressed in future studies and (arch)diocesan programming. For future research, potential recommendations should take into account the fact that Catholic priests are often studied along with clergy from Protestant denominations (Holleman & Eagle, 2023). More investigation on Catholic priests, a unique demographic even within clergy-related research, should be conducted to suggest with more confidence the generalizability of statistically significant results for other priest populations. Thus, more specific research is needed to further explore the associations of workplace and lifestyle factors with the occupational, or better yet vocational, health of Catholic priests in the United States.

## Practical implications

Individuals interested in occupational retention of clergy, in particular Catholic priests, may find value in the data collected in this particular research study. The researchers offer

a few takeaways for pastoral practitioners, clergy, and supervisors of clergy (i.e., Church hierarchy). First, clergy distress levels seem to be lower in populations where community living arrangements are present. Therefore, while living arrangements may be set by Church hierarchy or by the geographic limits of parish boundaries, building community and multi-clergy residences may provide clergy with a needed social support network. Second, mentorship programs between experienced clergy and novice clergy may mitigate some of the deleterious effects of burnout and distress levels. Clergy who have lived through similar experiences in their ministries may be able to help novice clergy work through pastoral interactions with congregants, cope with the stresses of pastoral work or social isolation, and serve as a spiritual, social, and emotional network. Lastly, the Church hierarchy may want to work with physical activity professionals to create programming that is more attainable and accessible to the clergy under their care to increase clergy's physical activity and the resulting occupational enjoyment benefits.

## Appendix 1. Comparative table of descriptives for demographics and CODI items/totals of recent clergy research

	Pulpit & Pew <sup>a</sup> ( <i>N</i> =879)	Webb & Chase <sup>b</sup> ( <i>N</i> =221)	Shaw et al. <sup>c</sup> ( <i>N</i> =93)	Current Study ( <i>N</i> =330)
	M (SD)	M (SD)	M (SD)	M (SD)
Age	51.02 (9.47)	51.90 (12.1)	52.52 (12.53)	51.45 (14.04)
Years Ordained	21.09 (10.81)	17.70 (13.2)	22.49 (12.90)	21.50 (14.48)
CODI Items: Over the past year, how often have..				
1. the people in your parish made too many demands of you?	2.29 (0.92)	–	2.55 (–)	2.35 (0.75)
2. the people in your parish been critical of you and things you have done?	1.93 (0.52)	–	2.14 (–)	1.93 (0.61)
3. you experienced stress as a result of dealing with parish members who are critical of you?	2.11 (0.80)	–	2.26 (–)	1.97 (0.79)
4. you felt lonely or isolated in your work?	2.10 (0.86)	–	2.44 (–)	2.02 (0.94)
5. you experienced stress because of the challenges you have in this parish?	2.54 (0.88)	–	2.76 (–)	2.43 (0.87)
CODI Score	10.98 (3.02)	11.50 (3.41)	12.15 (3.56)	10.70 (3.04)

<sup>a</sup>Carroll et al. (2022)

<sup>b</sup>Webb and Chase (2019)

<sup>c</sup>Shaw et al. (2021)

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## Declarations

**Ethics approval** This is an observational study. The Institutional Review Board for the Darden College of Education and Professional Studies at Old Dominion University confirmed that exemption has been granted.

**Consent to participate** Freely given informed consent was obtained from all individual participants included in the study.

**Consent to publish** The authors affirm that individual participant data was not published in this study. All data published is in aggregate form.

**Competing interests** The authors have no relevant financial or non-financial interests to disclose.

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