



# Expression of Burnout Symptoms in Pharmacists Who Provide Telepharmacy Services in Canada



Paula Newman, Olena Polyakova, Sammu Dhaliwall, Kevin McDonald

## Background

- Burnout is a syndrome based on the concept that chronic stress experienced by a person in their workplace remains unmanaged
- Prevalence of burnout is high in healthcare professionals
- Burnout can have negative consequences that affect individuals, patients, health teams and institutions
- As the current pandemic persists, increased levels of symptoms of burnout are being reported
- The expression of burnout in pharmacists who provide Telepharmacy services in Canada has not been studied

## Materials and Methods

### Design:

Cross-sectional electronic survey using a convenience sample of responses

### Objectives:

**Primary:** To describe burnout expression in pharmacists who provide Telepharmacy services in Canada

**Secondary:** To compare the total score in each of the three domain's expression of burnout between groups of factors related to pharmacy practice and sociodemographic characteristics

### Participants:

All pharmacists employed by a privately funded company who provided Telepharmacy services in full, or as a part of their pharmacy employment in Canada for at least four weeks prior to the study period

### Evaluation Instruments:

The Maslach Burnout Inventory-Human Services Scale (MBI-HSS)

- Comprised of 22 statements of job-related feelings, each statement having a score of 0-6 based on the frequency a respondent experienced those feelings
- Encompasses 3 domains\*: emotional exhaustion (EE), depersonalization (DP) and personal accomplishment (PA)

### Methods:

- By email, 120 Telepharmacists were invited to take part in an electronically deployed survey (Survey Monkey®) on March 23, 2021
- Participants were informed of survey purpose, expected contents, and estimated time for completion; participation was voluntary and anonymous
- Data collected included MBI-HSS domain scores, professional and sociodemographic characteristics; personal identifiers were not recorded
- Reminder emails were sent on March 29, April 5 and April 13.

### Data Analysis:

- Descriptive and inferential analyses were performed:
  - Frequency and simple percentages were used to describe qualitative variables
  - Bivariate analyses were used to evaluate differences between subgroups and logistic regression analysis was performed to examine the association of categorical variables

## Results

- Participation rate - 63% (75/120)
- Completion rate - 97% (73/75)
- Median time for survey completion was 8 (IQR 7-11) minutes

## Results

Table 1: Sociodemographic characteristics

CHARACTERISTICS	PARTICIPANTS, n (%)
<b>Age (years)</b>	(n=73)
25-44	13 (17.81)
35-44	22 (30.14)
45-54	22 (30.14)
>54	11 (15.07)
Prefer not to say	5 (6.85%)
<b>Gender</b>	(n=73)
Female	45 (66.18)
Male	23 (33.82)
Prefer not to say	5
<b>Highest level of pharmacy education</b>	(n=73)
Bachelor of Science (Pharmacy)	35 (47.95)
Post graduate Pharm D	17 (23.29)
Entry level Pharm D	7 (9.59)
Masters of Pharmacy	7 (9.59)
Prefer not to say	7 (9.59)
<b>Accredited Canadian pharmacy residency</b>	(n=73)
Completed	25 (34.25)
Not completed	48 (65.75)
<b>Years of practice as a licensed pharmacist</b>	(n=73)
Up to 5	5 (6.85)
6-10	11 (15.07)
11-15	13 (17.81)
>15	44 (60.27)
Enrolled	14 (20.29)
<b>Relationship</b>	(n=73)
Married/in a relationship	54 (73.97)
Single/divorced/separated	12 (16.44)
Prefer not to say	7 (9.59)
<b>Children</b>	(n=73)
No	23 (31.51)
Yes	50 (68.49)
<b>Primary school model</b>	(n=73)
<18 y.o living in household	47 (94.00)
In-person/hybrid learning	31 (65.96)
Virtual learning	8 (17.02)
Homeschooling	7 (14.89)
Other	1 (2.13)
≥18 y.o living in household	24 (48.00)
In-person learning	15 (62.50)
Virtual learning	7 (29.17)
Other	2 (8.33)

Table 2: Employment-related characteristics

CHARACTERISTICS	PARTICIPANTS, n (%)
<b>Current employment in Telepharmacy</b>	(n=73)
Full/Part-time	39 (53.42)
Casual	34 (46.58)
<b>Main area of Telepharmacy practice</b>	(n=73)
Hospital	49 (67.12)
Primary/Community Care	13 (17.81)
Other	11 (15.07)
<b>Allocation of total weekly worked hours for Telepharmacy employer</b>	(n=73)
≤40%	35 (47.95)
>40%	38 (52.05)
<b>Usual worked hours per week as Telepharmacist</b>	(n=73)
0-10	21 (28.77)
11-20	14 (19.18)
21-30	15 (20.55)
>30	23 (31.50)
<b>Usual number of days per week worked as Telepharmacist</b>	(n=73)
0	3 (4.11)
1-3	34 (46.57)
4-5	30 (41.10)
6-7	6 (8.22)
<b>Usual hr/week employed as pharmacist excluding Telepharmacy activities</b>	(n=73)
0-10	25 (34.25)
11-30	18 (24.66)
>31	21 (28.77)
N/A	9 (12.32)
<b>Usual hr/week employed as pharmacist including Telepharmacy activities</b>	(n=73)
≤20	10 (13.70)
21-30	11 (15.07)
31-40	18 (24.66)
41-50	20 (27.40)
More than 50	14 (19.17)
<b>Usual number of days per week worked as pharmacist including Telepharmacy activities</b>	(n=73)
<6	48 (65.75)
≥6	25 (34.25)
<b>Usual pharmacist work schedule for all employment</b>	(n=73)
Mostly daytime	31 (42.47)
Mostly evening	3 (4.11)
Mostly weekend	3 (4.11)
Mostly overnight	2 (2.74)
Shifts vary	32 (43.84)
Other	2 (2.74)
<b>Telepharmacy staffing adequacy</b>	(n=73)
Yes	52 (71.23)
No	7 (9.59)
Not sure	14 (19.18)
<b>On-call Telepharmacy duty</b>	(n=71)
No	58 (81.69)
Yes	13 (18.31)

Figure 1: Domain expression\*

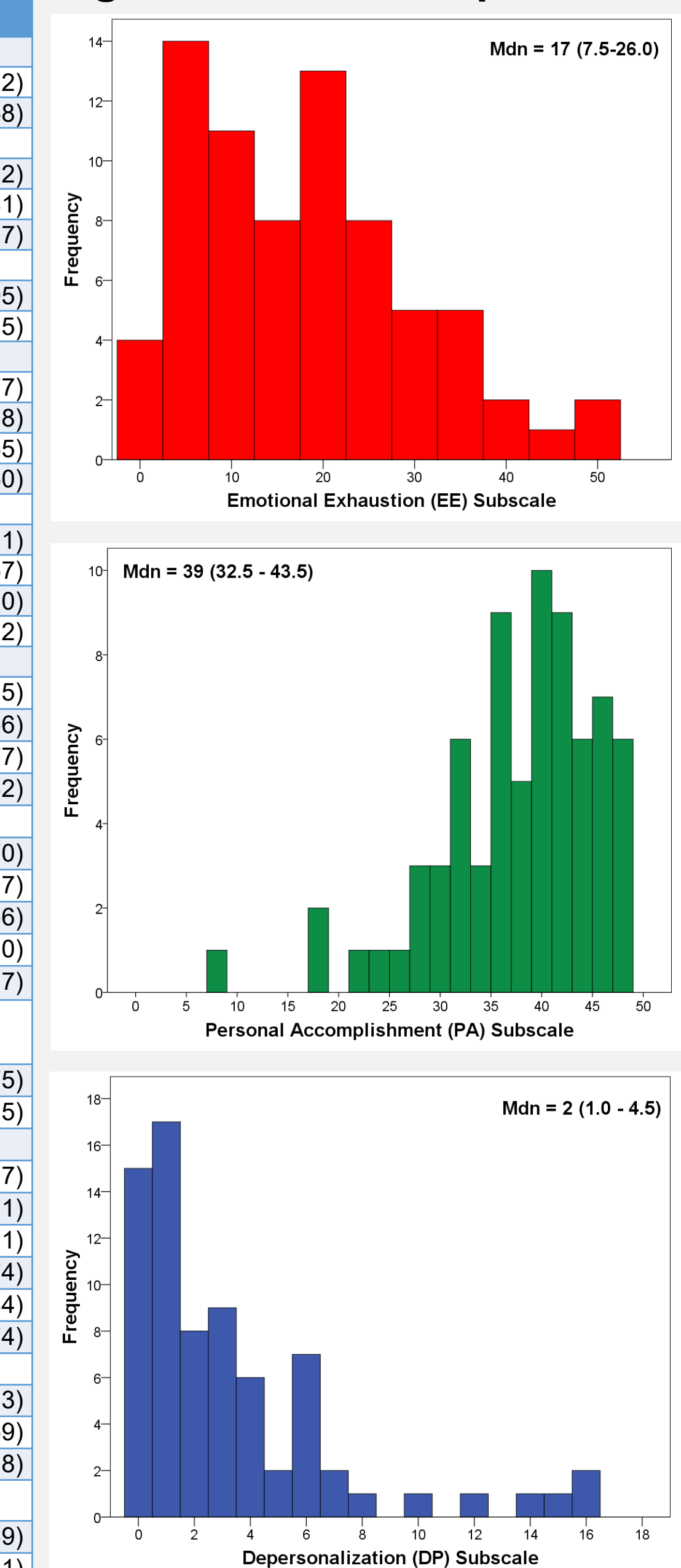
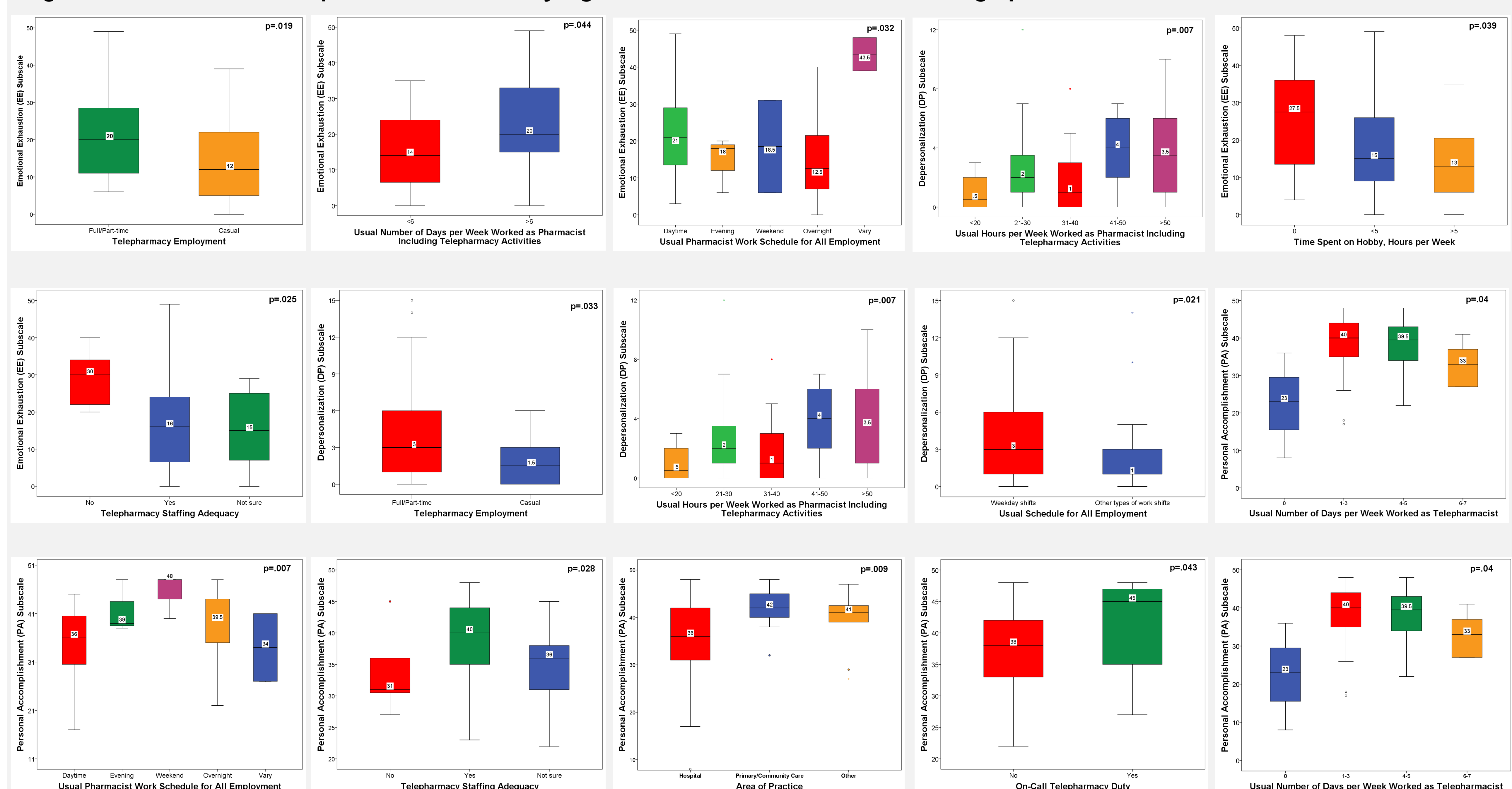


Figure 2: Burnout domain expression\*: Statistically significant work-related and sociodemographic characteristics



\* Note: Elevated EE and DP Domain Scores indicate higher expression of burnout, conversely, lower PA Domain Scores indicate higher expression of burnout

## Results

Sociodemographic and work-related factors that were related to burnout domain expression:

- Pharmacists who provide hospital services significantly predicted lower PA compared to other types of Telepharmacy practice (B=2.792, p=.026)
- Current Telepharmacy employment status significantly predicted EE (B= -6.434, p= .020).
  - Part/full-time employees have a higher expression of EE compared to casual Telepharmacy employment
- Pharmacist practice hours excluding Telepharmacy activities for more than 10 hours/week significantly predicts higher DP expression (B = .918, p= .033)
- Pharmacists who worked ≥ 40 hours per week in total for all pharmacy practice predicts higher DP expression (B= .714, p= .013)
- Telepharmacists who usually work evening, weekend, overnight or variable shifts have significantly higher PA expression compared to those who typically work weekday shifts (B= .233, p= .047)
- Telepharmacy work schedules that do not include weekday shifts may prevent the overexpression of DP (B= -2.051, p= .022)
- A Telepharmacy work schedule that is primarily weekend shifts may decrease expression of EE compared to primarily weekday shifts (B= -9.633, p= .040)
- A Telepharmacy work schedule that is typically weekend shifts is more likely to express higher PA (B= 9.983, p= .004)
- Pharmacist time spent on a hobby (excluding physical activity) are less likely to express high EE (B= -5.592, p= .007)

## Conclusions

- To the author's knowledge, this is the first reported data on the expression of burnout in pharmacists who provide Telepharmacy services in Canada amidst a global pandemic
- Several significant differences in burnout domain expression were found between work-related and sociodemographic characteristics
- Some work-related and sociodemographic factors may contribute to, and some may lessen the expression of burnout
- Variable work schedule, 40 hours or less per week of pharmacy practice, and allotting time for hobbies may reduce expression of burnout
- By using the same assessment tool, larger and longitudinal studies among this and similar cohorts of pharmacists could help to identify work-related and sociodemographic factors that could be addressed to decrease the expression of burnout

## Disclosure Summary

Authors of this poster have the following to disclose concerning possible personal or financial relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:

Newman P (author 1) – Employed by Northwest Telepharmacy Solutions  
Polyakova O (author 2) – Employed by Northwest Telepharmacy Solutions  
Dhaliwall S (author 3) – Employed by Northwest Telepharmacy Solutions  
McDonald K (author 4) – Director, Northwest Telepharmacy Solutions

