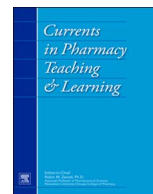




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## Research Paper

## Perceptions of organizational culture and organizational citizenship by faculty in U.S. colleges and schools of pharmacy

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## ABSTRACT

**Objectives:** (1) Describe perceptions of organizational culture and prevalence of organizational citizenship behaviors (OCBs) among faculty at United States (U.S.) colleges/schools of pharmacy; (2) determine which aspects of those phenomena are strongest and which are most problematic; (3) evaluate the psychometric properties of measures for organizational culture and OCBs in academic pharmacy; and (4) identify any relationships between organizational culture and organizational citizenship among academic pharmacy faculty.

**Methods:** A random sample of 600 U.S. academic pharmacists acquired from the American Association of Colleges of Pharmacy were distributed an email survey through the use of Qualtrics technology. The procedures closely resembled the Total Design Method advocated to maximize survey response, including use of a pre-notification letter, reminders, and a nominal financial inducement. In addition to demographic questions, the survey employed multiple-item measures of organizational culture and OCBs described previously in the literature and derived from Delphi consensus-building procedures. The analysis plan incorporated use of factor and item analyses to evaluate psychometric properties of the measure and elicit the inherent domains comprising these phenomena, along with descriptive statistics to describe facets of organizational culture and OCBs that were most prevalent.

**Results:** A total of 177 responses were delivered. Factor analysis of organizational culture revealed a five-factor solution emphasizing achievement orientation, professionalism, stability, supportiveness, and reflectiveness. OCB domains were along the possibility of faculty being virtuous, disrespectful, sportsmanlike, and benevolent/malevolent. Even while multi-faceted and avoiding a simple typological descriptor, academic pharmacy cultures were reportedly healthy. Sportsmanship, while still somewhat commonly observed, was seen less frequently than other behaviors. The measures demonstrated logical, cogent factor structures and excellent internal consistency reliability.

**Conclusions:** Psychometrically well-performing measures were used to assess the multi-faceted organizational culture of academic pharmacy programs and the organizational citizenship behaviors of its constituent faculty. The results can be used to measure these phenomena at individual organizations for benchmarking and to inform future inquiries that can assist with development of strategies that impact academic worklife and outcomes.

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## Introduction

Higher education continues a long history of evolution. Initial changes were brought about through the proliferation of academic disciplines into specialized fields where quantity of research output became the expectation.<sup>1</sup> With this continued expectation also arises more recently greater accountability for teaching outcomes.<sup>2</sup> Currently, academic pharmacists are beset with internal and external pressures to be consummate teacher-scholars, with the possibility of role conflict even among more seasoned and adept academicians.<sup>3</sup> This is further exacerbated by the expectation (and need) for advocacy not only by institutions but by individual faculty so as to promote the profession and leverage those actions into provider status for practitioners,<sup>4</sup> along with an increasing emphasis on assessment of myriad types of outcomes.<sup>5</sup>

As such, the concept of organizational culture has received considerable attention in the academic milieu in general, and in academic pharmacy, specifically.<sup>6</sup> Academic pharmacy has described the need to promote a culture of scholarship,<sup>7</sup> assessment,<sup>8</sup> diversity and inclusion,<sup>9</sup> academic integrity,<sup>10</sup> cultural competence,<sup>11</sup> professionalism,<sup>12</sup> and many more such “sub-cultures”. Promoting these subcultures is indeed admirable, if not always easy to achieve. One aspect of these subcultures is that they approach organizational culture as a typological versus a dimensional concept. A typological approach regards organizational culture as having the presence or absence of a certain quality. A dimensional approach takes into account the various underlying components of culture, with an appreciation for their interrelatedness.<sup>13</sup> This is underscored within a more recent definition by Schein,<sup>13</sup> regarded by many as one of the greater authorities on organizational culture, and whose definition serves as the basis for this research. Schein indicates organizational culture to be a pattern of shared basic assumptions learned by a group as it solves problems of external adaptation and internal integration, that work well enough to be considered valid.<sup>13</sup>

However, the impact played by organizational culture on a day-to-day basis often gets overlooked. One reason is that agreement on a definition remains elusive. There are many definitions, which the simplest and perhaps most frequently cited being, “how things are done around here.”<sup>14</sup> However, more comprehensive assessments recognize culture's multidimensional nature and are careful to distinguish organizational culture from organizational climate.<sup>15</sup> Climate is more transient, temporal, and subject to manipulation by people with power, rather than culture, which can be gradually impacted by those same individuals, but which involves a more holistic, comprehensive, and evolutionary approach.<sup>16</sup>

Organizational culture can vary not only among institutions within a certain area, or industry, but can also vary from one area/industry to another. Academia (particularly at four-year institutions) involves the provision of service, rather than a product. Moreover, many of its employees, even while under contracts, are faculty that serve to some degree as independent contractors, each with considerable autonomy to provide teaching, scholarship, and service as they see fit, or at least in accord with the mission of the organization. The clients of academic organizations are actually many, but center around students, wherein the customer versus learner argument is prevalent. As such, the culture of higher learning institutions can be said to be different from organizations in other industries.

Organizational culture in academia has long been viewed to be relatively unhealthy. Huyghe and Kockaert<sup>17</sup> found that the culture of many academic organizations was more inhibitory than facilitating of entrepreneurship among leading researchers, even while collaboration fueled by cultural alignment has been shown to produce copious new knowledge.<sup>18</sup> Organizational culture has an impact not only on research, but even the adoption of innovative teaching methods.<sup>19</sup> Both within and outside of academia, organizational culture has been frequently cited as a primary driver behind employee motivation, satisfaction, productivity, and longevity.<sup>20</sup> It has been argued that facilitating organizational change must be accompanied by an examination of culture.<sup>21</sup> In fact, a closer introspection of culture has been called for specifically in academic pharmacy,<sup>22</sup> wherein a compelling case made that a thorough examination, even codifying culture, should precede strategic planning efforts;<sup>23</sup> and indeed, there are now specific standards and considerable language addressing organizational culture in ACPE's most recent standards.<sup>5</sup>

One facet of organizational culture shown to be especially salient and a component within many measures of culture is organizational citizenship behaviors (OCBs). The prevailing cultural norms in an academic organization along with the general citizenship of its constituent members help to create an environment filled with putative emotions that can be either healthy, or volatile and deleterious.<sup>24</sup> Willson<sup>21</sup> found that unresolved conflicts about organizational norms of collegiality create scholarly anomie among its constituent faculty members. The American Association of Colleges of Pharmacy Council of Deans/Council of Faculties (AACP COD/COF) pointed to the criticality of organizational culture in academic pharmacy, but suggested in the absence of stronger, more formal mentoring programs, that organizational citizenship was an area ripe for further development within the Academy.<sup>25</sup>

Organizational citizenship behaviors are discretionary not always directly recognized by the formal reward system but yet still important for effective functioning of an organization.<sup>26</sup> OCBs have been referred to as a direct manifestation of collegiality.<sup>27</sup> Collegiality is important because of its implications for quality of worklife and turnover.<sup>28,29</sup> It has been demonstrated that a framework of (i.e., culture allowing for/encouraging) OCBs creates heightened social capital (camaraderie, effective collegial partnerships, goodwill), which might not only improve organizational performance but have a positive impact on employee work environments.<sup>30</sup> In fact, positive OCBs directed at peers have been associated with increased levels of reciprocal social support.<sup>31</sup>

The positive and negative OCBs carried out by individuals can also quickly manifest into a climate that can be reflective of an entire program (college or school) and/or within academic departments and inter-departmental cadres and cliques.<sup>32</sup> OCBs both inform and are a reflection of climate, but have roots in the broader culture.<sup>33</sup> In fact, positive OCBs can actually buffer an otherwise unhealthy or unstable culture and serve to “protect” vulnerable faculty such as those who are new or prone social or professional isolation.<sup>34</sup> While a holistic remedy of an ailing culture rests on the actions of persons comprising the entire organization, leader can at least role model and potentially precipitate citizenship behaviors, particularly if their actions are deemed as fair and equitable.<sup>35</sup>

### Study objectives

Pharmacy academia has seen spates of acute faculty shortages over the past couple decades, and departmental consensus and collegiality have been cited as problematic.<sup>36,37</sup> The references to organizational culture in the academic pharmacy literature just during the past few years, alone, are multitudinous, yet not proffered using a more comprehensive typological approach. While OCBs have been suggested to a manifestation of collegiality and reflective of the culture, the relationships between the two phenomena have yet to be examined. In other words, can positive OCBs manifest even in the face of a negative or weak culture, and vice versa? And are there specific facets of culture and OCBs that are more closely related and more pervasive in academic pharmacy? Answers to these questions can assist with further examination of the effect of culture and OCBs on a range of activities and outcomes, thus even assisting academic pharmacy organizations with planning and interventions, as appropriate. Hence, the aims of this study were to: (1) describe perceptions of organizational culture and prevalence of organizational citizenship behaviors among faculty at United States (U.S.) colleges/schools of pharmacy; (2) determine which aspects of those phenomena are strongest and which are most problematic; (3) evaluate the psychometric properties of measures for organizational culture and OCBs in academic pharmacy; and (4) identify any relationships between organizational culture and organizational citizenship among academic pharmacy faculty.

### Methods

This study employed a cross-sectional, non-experimental design with a self-administered survey to faculty in U.S. college/schools of pharmacy. Study procedures were deemed exempt from full review by the Touro University California Institutional Review Board (IRB).

#### Study sample

The sampling frame was faculty members listed in the AACP Roster of Professional Roster and Staff of 2016, prior to AACP's transition to use of its AACPCONnect platform.<sup>38</sup> The list was provided by AACP to the investigators upon payment in an Excel spreadsheet format. The investigators combed through the list deleting persons with a definitive staff, and not a faculty position. Some individuals on the list had titles making it difficult to discern their position; and in those cases, the investigators reached a consensus on those to delete from sampling consideration, taking a relatively aggressive approach in this manner, with the aim that those without a faculty appointment not be eligible to receive a survey. Example titles included, chief financial officer, accountant, administrator (with no other title or faculty listing), nurse practitioner, and pharmacy resident (even those given a faculty title). The list supplied by AACP consisted of 6484 members. A total of 1057 persons were deleted, making 5427 eligible for sampling. Keywords used to delete those in #2 above: CFO, accountant, administrator, coordinator, facilitator, manager, nurse practitioner, pharmacist, pharmacy resident, Mr., Mrs., no title, and no email listed. A sample calculation for the survey to be powered at 80% yielded a total of 148 responses considering a different facet of the study examining scholarly productivity, specifically the difference between five different academic pharmacy subdisciplines.<sup>39</sup> However, in knowing that principal components analyses were to be conducted, including an analysis of a 35-item measure, the investigators sought 200 respondents, given the preference that there be at least five degrees of freedom for each item in that measure.<sup>40</sup> With subsequently described inducements for participation, the investigators were hopeful for a 40% rate of return and sampled 400 members of the aforementioned roster following deletions and sought a randomized sample, rather than oversampling for any particular discipline/section or other subpopulation.

#### Survey design/implementation

A survey with questions/items comprising the variables of interest was designed using Qualtrics technology.<sup>41</sup> A modified version of the Dillman Total Design Method (TDM)<sup>39</sup> was used to execute the survey and optimize participant response rate. The random sample of faculty was acquired using a random number generator. Sampled faculty received a preliminary email in mid-April 2017 advising them of the upcoming study, followed by another email with a cover letter and a link to the survey approximately 10 days later (late April) then two more reminder emails approximately seven to eight days apart. The survey was closed on May 15. Survey recipients were notified that they were eligible to receive a \$5 gift card to Amazon should they care to divulge their email address voluntarily and were assured that the researchers would discard (delete) their email addresses prior to examining the data.

#### Study variables

Organizational culture was measured using a 35-item instrument using 5-point, Likert-type scales of agreement regarding the presence of that facet of culture in their respective programs. This measure was created using a Delphi procedure with 24 panelists from pharmacy schools in the U.S. and in Canada wherein panel participation was 100% for all three Delphi rounds, and where an overwhelming consensus was achieved in their adaptation of Sarros' well-known Organizational Culture Profile.<sup>42,43</sup> The items lie across six putative dimensions of competitiveness, social responsibility, innovativeness, emphasis on collegial support, performance orientation, and stability.

The prevalence of organizational citizenship behaviors (OCBs) was measured using 25 items on Likert-type scales of frequency (from 'never' to 'nearly all, or all the time'). This scale was also created using a Delphi procedure, but one with different participants than the aforementioned organizational culture project.<sup>44</sup> It comprises items that represent both positive and negative behaviors

undertaken by faculty, such as, “The faculty member tries to empower others in the organization” and “the faculty member monopolizes discussion during meetings”. These are examples of behaviors that are not the direct result of performing the job (e.g., teaching, conducting research) and thus are considered as “extra-role” behaviors synonymous with the measure of OCBs.<sup>45</sup>

Other variables measured in the survey were respondent's discipline/section listed by AACP, the respondent's gender, academic rank, and whether their appointment was at a public, private non-for-profit, or private for-profit institution.

### Analysis plan

Descriptive statistics were computed for each variable using SPSS, Version 21.<sup>46</sup> (Version 21, International Business Machines Corp, Armonk, NY). Survey items comprising the organizational culture and OCB measures were reviewed for poor performance, namely low variability, ceiling effects, and substantially numerous item-item correlations greater than 0.6. An exploratory factor analysis was performed using principal axis factoring extraction and Promax rotation. The number of factors to retain was based upon an examination of scree plots and size of eigenvalues (i.e., greater than one). Items with loadings > 0.3 on multiple factors were placed into the best fitting conceptual factor. Factors were named based upon the items within, and Cronbach's alphas were computed for each factor, or subscale/domain in addition to an overall Cronbach's for each of the two measures. Items were further discerned for appropriateness based upon their overall fit in the factor analysis and impact on the Cronbach's alpha scores upon their inclusion or deletion. There were no inferential statistics performed for this phase of the study.

## Results

### Respondent characteristics

Of 600 surveys disseminated, 177 were returned and usable, thus yielding a response rate of 29.5%. An additional 6 persons had begun the survey but not did not submit a response. A total of 102 respondents opted to receive the available gift card. Responses

**Table 1**  
Characteristics of study respondents and their employing organizations.

Characteristic	N (%) <sup>a</sup>
Institution Ownership Structure	
Public institution	78 (44.1%)
Private, not-for-profit	66 (37.3%)
Private, for-profit/proprietary	13 (07.3%)
Respondent Gender	
Female	88 (49.7%)
Male	74 (41.8%)
Respondent Academic Rank	
Instructor or clinical instructor	3 (01.7%)
Assistant professor or clinical assistant professor	59 (33.3%)
Associate professor or clinical associate professor	53 (29.9%)
Professor or clinical professor	48 (27.1%)
Respondent Administrative Responsibilities <sup>b</sup>	
None	91 (51.4%)
Coordinator or Director	30 (16.9%)
Vice-Chair or Chair	22 (12.4%)
Assistant, Associate, or Vice Dean	16 (09.0%)
CEO Dean	5 (02.8%)
Respondent Discipline	
Library Sciences	2 (01.1%)
Medicinal Chemistry	8 (04.5%)
Pharmaceutics	21 (11.9%)
Pharmacology/toxicology	23 (13.0%)
Pharmacy Practice	88 (49.7%)
Social and Administrative Sciences	22 (12.4%)
Respondent Years of Experience as an Academician	
0–5	43 (24.3%)
6–10	35 (19.8%)
11–15	28 (15.8%)
16–20	18 (10.1%)
> 20	40 (22.6%)

CEO = Chief executive officer.

<sup>a</sup> Out of a possible 177 responses. Totals representing less than N = 177 (100%) are indicative of missing responses, respondents choosing ‘prefer not to answer’ or leaving blank (allowed by investigators in survey design).

<sup>b</sup> Respondents were instructed to select one title best describing their administrative responsibilities should they have more than one title of those listed.

**Table 2**  
Responses to the measure of organizational culture.

Item	Proposed, resultant factor <sup>a</sup>	Factor Loading <sup>b</sup>	Mean ± S.D. <sup>c</sup>
Is achievement-oriented	Co,Co	0.70	3.83 ± 1.10
Emphasizes quality	Co,Co	0.62	3.93 ± 1.02
Strives to be unique from other programs	Co,Co	0.59	4.01 ± 1.04
Is reflective	Re,Re	0.60	3.73 ± 1.05
Is socially responsive to the needs of the neighboring community(ies)	Re,Re	0.86	3.97 ± 1.12
Develops mutually beneficial relationships with key non-academic partners	Re,Re	0.65	3.88 ± 1.07
Fosters innovation among employees	In,Co	0.73	3.62 ± 1.18
Makes the most of available opportunities	In,Co	0.76	3.63 ± 1.15
Takes informed, appropriate risks	In,Co	0.78	3.41 ± 1.16
Provides infrastructure for innovation	In,Co	0.70	3.14 ± 1.20
Invests in human capital	In,Co	0.59	3.16 ± 1.22
Promotes personal and professional development through mentoring	Su,Su	0.49	4.15 ± 1.22
Avoids favoritism in its treatment of people	Su,Su	0.79	3.76 ± 1.34
Encourages meaningful contributions from all employees	Su,Su	0.56	4.29 ± 1.11
Recognizes value in everyone's contributions	Su,Su	0.64	4.13 ± 1.21
Demonstrates respect for employees	Su,Su	0.65	4.25 ± 1.20
Fosters respect between employees	Su,Su	0.66	4.23 ± 1.19
Is respectful of personal boundaries	Su,Su	0.63	4.45 ± 0.98
Discourages individual political maneuvering	Su,Su	0.78	3.92 ± 1.18
Promotes trust or a trusting atmosphere	Su,Su	0.76	3.88 ± 1.34
Facilitates communication and sharing of information	Su,Su	0.73	3.82 ± 1.39
Promotes collaboration and camaraderie	Su,Su	0.63	4.16 ± 1.24
Makes employees feel part of the organization	Su,Su	0.58	4.14 ± 1.28
Makes students feel part of the organization	Su,Pr	0.69	4.58 ± 0.90
Has high expectations for the institution as a whole	Po,Co	0.73	3.98 ± 1.04
Facilitates enthusiasm for organizational effectiveness	Po,Co	0.60	3.40 ± 1.20
Abides by a clear mission or guiding philosophy	Po,Co	0.50	3.71 ± 1.17
Empowers people to achieve	Po,Co	0.62	3.42 ± 1.16
Fosters positive student outcomes	Po,Pr	0.51	4.03 ± 0.98
Applies appropriate criteria to the allocation of rewards	Po,Su	0.53	3.23 ± 1.26
Praises and recognizes good performance	Po,Pr	0.61	3.55 ± 1.22
Fosters professionalism in students, faculty, and staff	Po,Pr	0.56	3.84 ± 1.19
Values stability in the organization	St,St	0.77	3.76 ± 1.12
Remains calm in turbulent times	St,St	0.78	3.66 ± 1.01
Makes faculty and staff feel secure in their employment	St,St	0.76	3.46 ± 1.16
Manages conflict effectively	St,Su	0.70	3.03 ± 1.18

<sup>a</sup> Initial proposed factors, including: Competitive/achievement-focused (Co), Reflective (Re), Innovative (In), Supportive (Su), Performance-oriented (Po), Stability (St); Resultant factors, including: Competitive/achievement-focused (Co), Reflective (Re), Supportive (Su), Professional (Pr), Stability (St).

<sup>b</sup> Factor loading on the primary factor designated.

<sup>c</sup> Measured on a scale from 1 = to Very uncharacteristic, 2 = Somewhat characteristic, 3 = Neither characteristic nor uncharacteristic, 4 = Somewhat characteristic, to 5 = Very characteristic.

came from a dispersed group of faculty representing various institutions and personal demographics (Table 1). The average age of respondents was  $44.88 \pm 12.94$  years. Nearly 40% of respondents were male. Just over 40% were from public institutions, while just under 10% were employed at for-profit institutions. There were approximately 1/3 each of respondents ranked at assistant, associate, and full professor, respectively. Just under half of respondents were from pharmacy practice, with over 4% from medicinal chemistry, and 12–13% each from pharmaceuticals, pharmacology/toxicology, and social and administrative sciences. Approximately 44% of those responding to the question indicated having some sort of administrative title.

### Organizational culture

Data regarding respondents' views on their institution's organizational culture and some of the scale's psychometric properties are provided in Table 2. From the factor analysis (of 174 responses), items loaded onto five factors (domains). Table 2 provides information on the originally proposed domains. Those domains were derived from the Delphi group producing the measure in accord with the Organizational Culture Profile (OCP).<sup>42,43</sup> That group produced the putative domains similar to but with one fewer (six) than the original OCP (seven), including an extensive one on collegiality and support, somewhat unique in the academic context. When actually applied to a population as was done in this study, the domains were rather similar (Table 3). The competitiveness/achievement orientation domain included the original items on the competitiveness domain but also included items on the innovativeness domain, including providing infrastructure and taking risk, as well as from the performance orientation domain, such as abiding by a clear mission. The emphasis on collegial support, i.e., 'support' domain remained largely the same, with one item on making students feel part of the organization moving to a new 'professional' domain and with the addition of one item on applying appropriate criteria to the allocation of organizational rewards. The professional domain also includes items on praising good

Table 3

Comparison of the original dimensions of the Organizational Culture Profile (OCP) and the dimensions of academic pharmacy culture from this study.

OCP	Academic Pharmacy
<b>Supportiveness</b>	<b>Supportive</b> Composition of items is similar; includes an additional item from this study on collegiality and camaraderie
<b>Social Responsibility</b>	<b>Reflective</b> Composition of items is similar; the 'reflective' item loaded onto others with social responsibility, whereas 'reflective' cross-loaded onto Social Responsibility and Competitiveness in the OCP
<b>Competitiveness</b>	<b>Competitive/Achievement-focused</b> Items here from the OCP Competitiveness and Performance Orientation domains loaded together for this study; some items from the OCP Competitiveness domain did not load onto any domain from this study or had already been dropped during the measure's initial creation
<b>Stability</b>	<b>Stability</b> Composition of items very similar
<b>Performance Orientation</b>	<b>Professional</b> Features items unique for this context, primarily dealing with students; the OCP Performance Orientation items primarily loaded onto the Competitive/Achievement-focused domain in this study
<b>Reward Orientation</b>	Items from the Reward Orientation loaded onto various domains in this study, primarily on the Supportive domain
<b>Innovation</b>	Items from the Innovation domain from the OCP saw 1–2 of them dropped but others loading primarily onto the Competitive/Achieve-Focused domain from this study

performance and fostering professionalism. The original stability domain was largely unchanged, with the removal of one item regarding managing conflict to that item's new home in the support domain. The overall five-factor solution explained 89.4% of the variation in responses. The Cronbach's alpha for the entire measure was calculated at 0.98. The Cronbach's alpha for each of the five domains (subscales) were as follows: Support = 0.97; Reflective = 0.78; Competitiveness/ achievement-focused = 0.95; Professionalism = 0.87; Stability = 0.89. Additional evidence of the measure's construct validity was acquired from its comparison to a 1-item measure on climate (from much worse than to much better than other colleges of pharmacy) with one-way analyses of variance performed on the total scale and each subscale of the organizational culture measure ( $p < 0.001$ ). The aspects of culture that respondents indicated were most indicative of their organization were: making students feel part of the organization, being respectful of boundaries, encouraging meaningful contributions from employees, and fostering respect between employees. The aspects of culture that respondents indicated were least indicative of their organization were managing conflict effectively, providing infrastructure, investing in human capital, and applying appropriate criteria to the allocation of rewards. The domain with the highest average item mean (4.11) was professionalism, and those with the lowest were competitive/achievement-focused (3.61) and stability (3.62).

#### Organizational citizenship behaviors

Responses to the measure of OCBs, along with facets of the measure's psychometric properties are provided in Table 4. Unlike the measure of organizational culture, there was no factor structure suggested for the OCB measure, only the implication that certain items resembled, or could be fathomed to belong to domains originally proffered by Organ,<sup>26</sup> such as civic virtue, sportsmanship, and altruism. The factor analysis (of 173 responses, due to missing data from four respondents) revealed a 4-factor (domain) solution explaining 80.2% of the variance in responses. While many of the positive behaviors and negative behaviors loaded with one another, this was not exclusively the case. The first factor, containing 11 items, included such behaviors as helping others, volunteering, going out of one's way, and empowering others. Resembling many of the facets of "Virtue" described by Organ,<sup>26</sup> this domain was named as such. The second domain consists of negative behaviors and is named "Selfishness", as items portray directly and indirectly selfish behaviors, shirking responsibilities, and political maneuvering. The third domain consists of positive and negative behaviors, such as creating negative energy (e.g., gossiping), attempting to control meetings, but also keeping confidences, and providing quality feedback to peers. As such, these would resemble behaviors (or lack, thereof) akin to what has been described as "Sportsmanship" or being "unsportsmanlike". The fourth domain consists of positive behaviors such as expeditious return of communication and passing along information, along with negative behaviors such as renege on commitments and taking credit for others' work. This is somewhat akin to Organ's "Conscientiousness" but differs to some degree and is so named here the domain of Benevolence/Malevolence for overt behavior aimed to assist or betray colleagues. The Cronbach's alpha for the overall measure was 0.94. The Cronbach's alpha for each domain/subscale are as follows: Virtue = 0.92; Selfishness = 0.84; Sportsmanship = 0.80; and Benevolence/Malevolence = 0.69. The correlation of the overall measure of OCBs (with negative ones being reverse coded) with the overall measure of organizational culture of  $r = 0.38$  would suggest that the two are related, but are distinct measures, thus evidencing convergent and discriminant validity. Respondents' reports of OCBs in their organization were statistically related to the aforementioned 1-item climate measure, as well.

The OCBs respondents reported experiencing most frequently were colleagues going above and beyond their necessary job requirements, taking a personal interest, and continually trying to improve/develop themselves. Positive OCBs reported somewhat less frequently were providing quality feedback and helping others. The OCBs reported less frequently were negative behaviors, such as taking credit for others' work, renege on commitments, and shirking responsibility. In calculating overall item means for each domain, negative citizenship behaviors were reverse coded. After doing so, the overall item means were similar, with the highest

**Table 4**  
Organizational citizenship behaviors observed/experienced by study respondents.

Citizenship behavior	Factor name <sup>a</sup>	Factor loading	Mean $\pm$ S.D. <sup>b</sup>
Creates negative energy in the organization (e.g., gossiping, bullying)	Sp	0.74	2.41 $\pm$ 0.79
Takes a personal interest in the well-being of colleagues	Vi	0.69	3.15 $\pm$ 0.79
Voluntarily helps others who have heavy workloads	Vi	0.63	2.67 $\pm$ 0.87
Is disrespectful to faculty colleagues	Sp	0.69	1.77 $\pm$ 0.80
Passes along work-related information to colleagues, as appropriate	Be	0.53	3.01 $\pm$ 0.66
Does not show up to meetings	Di	0.62	2.12 $\pm$ 0.77
Consistently volunteers to do things	Vi	0.74	2.67 $\pm$ 0.85
Does not do his or her fair share of work in committees or other groups activities/assignments	Di	0.75	2.10 $\pm$ 0.73
Goes out of the way to help junior colleagues	Vi	0.77	2.76 $\pm$ 0.84
Is disrespectful to persons in authority	Di	0.57	1.65 $\pm$ 0.70
Sacrifices personal time and resources to assist others	Vi	0.79	2.75 $\pm$ 0.91
Provides mentorship outside of any formal mentoring program	Vi	0.75	2.86 $\pm$ 0.84
Takes credit for the work of authors	Be	0.54	1.64 $\pm$ 0.74
Invites colleagues to participate in scholarly endeavors	Vi	0.72	2.76 $\pm$ 0.85
Goes above and beyond for students (e.g., writes many recommendation letters, provides career counseling)	Vi	0.70	3.30 $\pm$ 0.79
Continually tries to improve and develop	Vi	0.65	3.13 $\pm$ 0.72
Reneges on commitments	Be	0.65	1.66 $\pm$ 0.66
Tries to empower others in the organization	Vi	0.64	2.68 $\pm$ 0.82
Shirks responsibilities and leaves them for others to do	Di	0.74	1.74 $\pm$ 0.72
Provides quality feedback on others' scholarly works	Sp	0.56	2.57 $\pm$ 0.81
Engages in political maneuvering sometimes at the expense of the organization	Di	0.49	1.89 $\pm$ 0.85
Returns communications (voice, email) in a timely manner	Be	0.43	3.06 $\pm$ 0.64
Attempts to monopolize or control discussions at meetings	Sp	0.52	2.03 $\pm$ 0.82
Keeps confidence with information when asked to do so	Sp	0.50	2.99 $\pm$ 0.83

<sup>a</sup> Vi = Virtuous, Di = Disrespectful, Sp = Sportsman/Unsportsmanlike, Be = Benevolence/Malevolence.

<sup>b</sup> Measured on a scale of frequency from 1 = rarely or never, to 4 = Nearly, or all the time.

mean for items in the Benevolence/Malevolence domain (3.19) and Virtue domain (3.17), followed by Selfishness (unselfish) (3.11), and lastly, the sportsmanship domain with an overall item mean of 2.87.

## Discussion

A healthy organizational culture is increasingly recognized as critical for positive outcomes. This is the case not only for employee retention, but for innovativeness in teaching and research and to keep employees and other internal (e.g., students) and external clients engaged.<sup>47–49</sup> Still, the concept of organizational culture is complex. In a more recent update from his accumulation of seminal work, Schein<sup>50</sup> attested to the difficulty in “making sense of it all”, referring to the myriad definitions of culture, its inappropriate interchanging with climate, the improper focus on typological paradigms, and the wealth of research that sometimes appears contradictory due to different settings of study and various operational definitions used. As such, the approach taken in this study was to examine organizational culture in academic pharmacy as perceived by its constituent faculty and to employ a dimensional approach. There is not a particular word or typology that should be proffered to name the “typical” culture of academic pharmacy programs. That being said, the organizational culture of programs as a whole would appear to be rather healthy, with relatively high marks on Competitive/achievement-focused, Reflective, Supportive, and Professional domains. Aspects of culture stated by respondents as requiring the most improvement were investing in infrastructure and capital, allocating organizational rewards, and managing conflict. Given the autonomous nature of faculty work, the fact that these aspects were provided somewhat lesser ratings might not be that surprising. Academic pharmacists have expressed concern about their department's and even entire institution's inability to leverage the talent of the faculty,<sup>51</sup> and have also expressed concern about the ability of the institution to evaluate productivity and thus make optimal decisions for promotion and tenure.<sup>52</sup> Additionally, some respondents indicated their institution's inability to remain calm and did not rate the organization highly on stability. This might be salient not only in the face of diminished extramural funding sources but a landscape in pharmacy education that features new programs continuously arising, with these institutions plucking off faculty from more established ones.

Leadership is always considered paramount, as organizations face uncertainty and turbulent times. Evidence suggests that position leaders like deans and chairs, for example, can have an impact on culture; however, their doing so is in concert with other members of the organization and is an evolutionary process. Leaders must be cognizant of culture and take this into account for affecting change,<sup>53</sup> and transformative leadership is most likely to be effective, as these leaders are aware that changes in one area will affect (positively and negatively) other areas.<sup>54</sup> To that end, a culture of “academic integrity”, for example, will inherently affect other typological (sub)cultures in the grand scheme of things, and the most effective transformative leaders have this in mind and are not looking to shape just one area. These same leaders are the ones most likely to be successful in bringing about innovation<sup>55</sup> and help to provide lasting changes that include even future hires for consideration of person-organization fit.<sup>56</sup>

There is some prior work examining aspects of culture and OCBs concomitantly. In regards to allocation of rewards and bestowing tenure and promotion, one study found a mediating effect of support from the organization on procedural justice, or what was

deemed unfair, and a person's likelihood for engaging in unfavorable citizenship behaviors.<sup>57</sup> A meta-analysis found that job attitudes nested within aspects of culture, along with leader supportiveness and perceived fairness are robust predictors of OCBs.<sup>58</sup> Still, some older research suggests that relationships between OCBs and job satisfaction are stronger than cultural influences, in and of themselves.<sup>59</sup> Additionally, OCBs are not explained by the same incentives that induce conformity to contractual role prescriptions, or high production; however, academicians may perceive a close relationship between in-role and extra-role behaviors (OCBs).<sup>60</sup> Perhaps most germane to the current study, a "Virtue" facet of culture has been shown to correspond with similar reciprocal behaviors of teachers<sup>61</sup> and that a supportive culture by the organization can manifest in better service performance (eg, teaching) by its constituent employees.<sup>62</sup>

OCBs certainly have an implication for climate at university-, college/school-, and particularly departmental levels; however, it might not be easy to discern which precedes the other.<sup>33</sup> For high-complexity jobs, regardless of cause-and-effect, the strong association between these two phenomena and with turnover is unmistakable.<sup>63</sup> Solutions for academic leaders are not easy, though, as those who exhibit consistently positive organizational citizenship behaviors are often taken for granted,<sup>64</sup> especially when the institution does not properly acknowledge those OCBs and focuses its reward system exclusively on in-role performance.<sup>65</sup> Academic leaders, especially chairs or others in a direct supervisory role, must ensure growth and development of all faculty and have to help them balance in-role and extra-role (OCB) functions, all while maintaining cohesion and preventing isolationism and ostracism.<sup>66</sup> Respondents in this study were less likely to observe "Sportsmanship" behaviors by their colleagues, which include providing quality feedback, yet a greater propensity to create negative energy by gossiping or bullying. These might be considered "higher order" OCBs, whereas other OCBs more overtly associated with malevolence were seen less frequently. As such, academic leaders and senior peers might take time to reflect on these issues and also incorporate sportsmanship values in development and in construction of mentoring programs. It might be especially important for leaders and senior colleagues to role-model the appropriate behaviors.

The measures themselves and the examination of their psychometric properties also produced valuable insight, as the facets of organizational culture were similar to the OCP, but with a few distinct differences, such as the coalescing of items around achievement orientation, which perhaps underscores faculty's beliefs and recognition that it takes various concomitant forces for the academic organization to be truly effective. Also, the identification of a professionalism domain was new and might be an important endemic quality for other programs educating professionals, such as nursing, medicine, and even non-health professions educational programs. Many OCBs such as going above and beyond, volunteering, and taking a personal interest in colleagues all loaded onto a "Virtue" domain; and these might be activities that faculty first think of when contemplating OCBs.

### Study limitations

Several limitations should be considered when examining the study's findings. For one, the study design was cross-sectional and precludes causal inferences. Additionally, faculty were asked to self-report aspects of their organization and behaviors of their colleagues in general, thus potentiating either inaccurate portrayals, or portrayals biased by their current state of mind and their own satisfaction with working conditions at their institution at the present moment when taking the survey, as opposed to a broader view. Respondents were not asked to think about a certain length of time; but rather, just their overall impression of things as they responded to the survey. In spite of following recommended procedures and even offering a nominal monetary inducement, survey response was low. The internal funding source and timing necessitated that the surveys be delivered during late April and early May when faculty are likely busy preparing for academic end-of-year activities. Response burden was not likely a problem; using Qualtrics, it was determined that 177 persons out of 183 who even opened the survey completed it (or most of it, including optional questions). Still, those with particularly favorable or unfavorable views of their organizations might have been more likely to respond. The responses came from an adequate spread of faculty across institution type and various personal characteristics. However, the limited rate provided a low response for conduct of a principal components analysis. This low number of responses for the analysis introduces possible instability in the eigenvalues and thus the structure of the factors themselves; as such it is possible that a larger number of respondents would have resulted in a different factor structure and interpretation.<sup>67</sup> Additionally, approximately 44% who provided a response to whether they have an administrative title indicated affirmatively. Even though many of these persons hold regular faculty positions as a coordinator or director and few were CEO deans, it is possible that this sample of respondents had a larger number of persons not on the "front line" and might not be fully cognizant of OCBs. The psychometric qualities of the organizational culture and OCB measures appeared quite solid, and those measures were developed from Delphi (consensus) approaches based upon input from pharmacy faculty. The limitation is that with such specific instrumentation used, the results can hardly be effectively compared to other academic settings where other measures have been employed, even while those measures lack construct validity and reliability, often relying on 1-item, global measures. Also, this study did not examine such things as broader university ownership or mission (such as whether the institution is faith-based), has satellite campuses, employs an accelerated curriculum, and many other factors that could have an effect on culture and OCBs. Another limitation is that the research examined perceptions and behaviors only among faculty. Staff can just as well exhibit positive and negative OCBs, have perceptions of, and contribute toward organizational culture. However, the instruments used in this study were designed to capture the unique and autonomous nature of faculty activities, and faculty are those responsible for more direct delivery of the primary service (knowledge transfer) to clients (students). Other studies examining culture have predominately examined faculty, only; however, it might behoove future research examining academic pharmacy work life and outcomes to consider staff, particularly as staff members have become so diverse in providing a wide range of services to faculty and to students, alike.



## Conclusion

This study was the first to measure organizational culture and to examine the occurrence of organizational citizenship behaviors reported by faculty colleagues in academic pharmacy. The work describes the multi-faceted nature of such cultures, eschewing a typological approach but still regarding those cultures as relatively healthy in spite of some need for improvement in maintaining stability/calm and leveraging human capital for achievement. Overtly malevolent anti- or negative citizenship behaviors were not widely reported, although some aspects of sportsmanship can be improved. The psychometric properties of the instruments used were very good. The results of this study should assist academic managers with measuring culture and citizenship and thus can also lay the foundation for additional work that could uncover underlying reasons for perceptions of culture and OCBs so as to develop strategies that impact outlook, climate, and overall work environment.

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