



Predicting Academic Help-Seeking Intentions Using the Reasoned Action Model

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Seeking help when confronted with academic difficulties is an adaptive self-regulated learning strategy that facilitates positive academic outcomes. However, many students are reluctant to seek help with academic difficulties. The current study used the Reasoned Action Model to investigate the determinants of students' intentions to utilize university-based sources of academic support. Participants ($N = 125$) in Study 1 responded to open-ended questions designed to identify salient behavioral, normative, and control beliefs contributing to the use of university-based academic support services. Participants ($N = 176$) in Study 2 completed measures to assess attitudes, perceived normative pressure, perceived behavioral control, and behavioral intentions. Normative pressure was the strongest predictor of intentions to use university-based academic support, followed by attitudes. These results suggest that interventions targeting normative and behavioral beliefs may be effective in increasing academic help-seeking.

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INTRODUCTION

There is a general consensus among experts in education-related disciplines that variation in students' academic performance cannot be solely attributed to differences in cognitive skills and content knowledge (Farrington et al., 2012). Instead, student success is the result of the complex interplay among cognitive (e.g., intelligence, aptitude; Snow et al., 1996) and non-cognitive factors (e.g., grit, academic self-efficacy, emotional intelligence; Duckworth et al., 2007; Han et al., 2017; Thomas et al., 2017) that exert facilitative and debilitating influence on academic performance. One non-cognitive factor of interest is the contribution of effective self-regulated learning practices to academic surviving and thriving. Since the formulation of the concept of self-regulated learning in the fields of education and educational psychology (Corno, 1986; Shunk, 1986; Zimmerman, 1986), a substantial body of empirical evidence has demonstrated a strong positive association between the implementation of self-regulated learning practices and academic success. For instance, seeking help from more knowledgeable others is one of the most efficacious self-regulated learning practices learners can employ when confronted with academic difficulties (Nelson-Le Gall, 1981; Newman, 1994, 2002; Karabenick and Newman, 2006; Karabenick and Berger, 2013; Karabenick and Gonida, 2018). As such, U.S. universities collectively devote in excess of 19 million dollars a year toward the establishment of academic support services (e.g., advising resources, tutoring services, study skills workshops, summer bridge programs) to facilitate the success of their students (U.S. Department of Education, National Center for Education Statistics, 2015, 2018; McFarland et al., 2018). Unfortunately, available evidence suggests many university students are reluctant to seek assistance with academic challenges (Karabenick, 1998, 2003). The failure of students to seek out university-based sources of support is problematic

for both students and university officials. More specifically, many students neglect beneficial programs while university officials are often forced to decide what proportion of their funding—if any—should be devoted to underutilized support programs. Therefore, this study was designed to identify important determinants of university students' academic help-seeking behavior using the Reason Action Model (RAM; Fishbein and Ajzen, 2010), with an eye toward developing interventions to increase the use of university-based sources of academic support.

Academic Help-Seeking

During their academic tenure, learners encounter situations where they fail to meet academic demands because of deficits in key academic skills and content knowledge (Newman, 1990; Butler and Neuman, 1995). When confronted with challenges, it is vital that learners consider the nature of the learning event as well as their personal characteristics in order to identify strategies that will support academic growth and success (i.e., self-regulated learning; Zimmerman, 2002). Over the past 30 years, considerable attention has focused on determining the effectiveness of self-regulated learning practices. One popular avenue of research has focused on the impact of seeking help from informal (e.g., peers), formal (e.g., professors) and institutionally-based sources of academic support (e.g., writing centers, tutoring center; Knapp and Karabenick, 1988; Makara and Karabenick, 2013). These efforts have resulted in a sizable body of empirical evidence demonstrating that help-seeking behaviors are associated with: (1) increased performance on class exams (Karabenick, 2003, 2004), (2) higher course grades and grade point averages (Kulik et al., 1983; Ryan et al., 2005), and (3) the internalization of adaptive self-regulated learning strategies that allow learners to utilize them independently when confronted with future academic challenge (Gall, 1985).

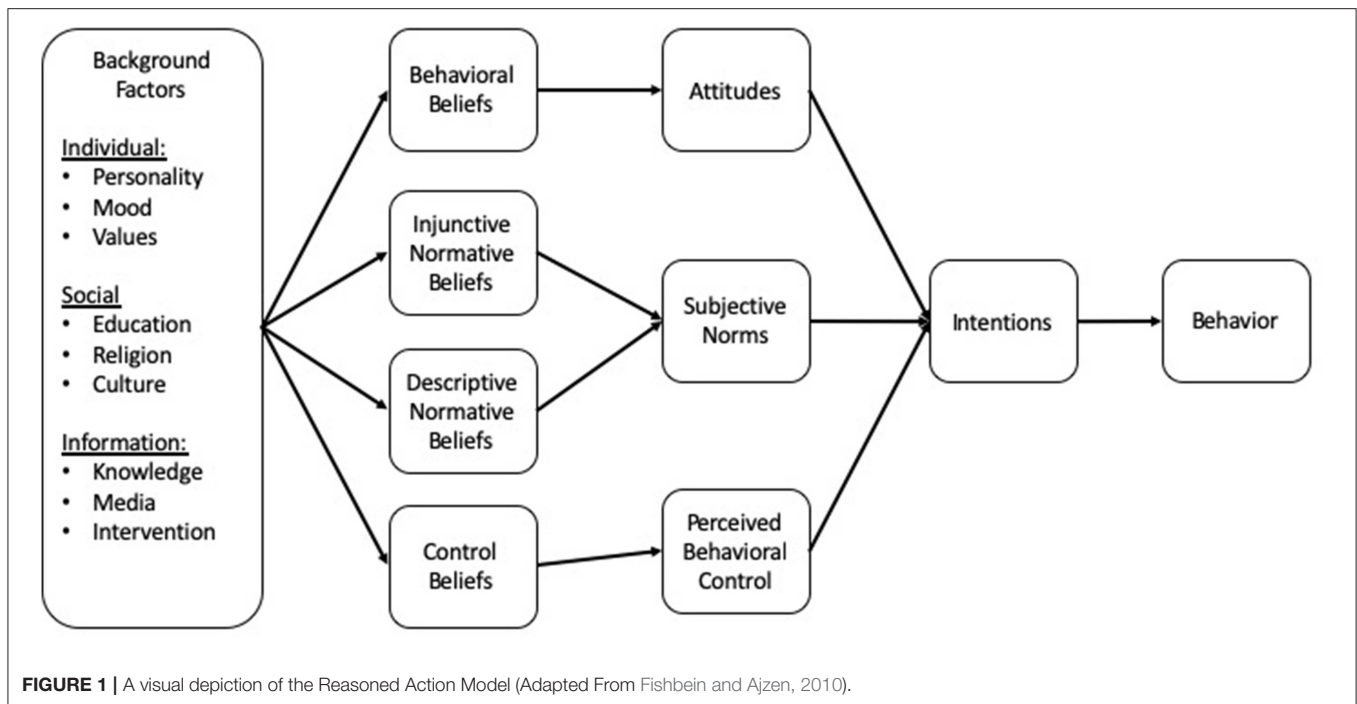
While engaging in academic help-seeking behaviors has been shown to support academic success, learners at all educational levels often fail to implement this particular self-regulatory strategy when confronted with academic difficulty (Ames and Lau, 1982; Dillon, 1982; Good et al., 1987; Karabenick, 2003). Because of students' reluctance to seek help, researchers have devoted considerable time and effort on the identification of key determinants of academic help-seeking behavior. These efforts indicate that a multitude of student-level factors (e.g., goal orientation, attributional style; Ames and Lau, 1982; Karabenick and Knapp, 1991; Magnusson and Perry, 1992; Karabenick, 2004) and contextual factors (e.g., classroom goal structure, classroom peer climate; Newman, 1998; Karabenick, 2004; Shim et al., 2013) interact to influence learners' decision to engage in help-seeking behaviors. While prior investigations have identified a multitude of such factors, it is our contention that most of the existing work has focused on relatively distant, "background" factors that typically yield small to modest predictive power. The lack of predictive power is apparent upon consideration of the amount variance explained in academic help-seeking intentions and behaviors by these factors in past investigations (R^2 .06–0.22; Karabenick, 1998, 2003; Karabenick and Knapp, 1998). In contrast, there exist theoretically more direct, proximal factors

that are likely to better predict academic help-seeking. Namely, the predictor variables identified in the Reasoned Action Model (RAM; Fishbein and Ajzen, 2010).

The Reasoned Action Model

The RAM is the most recent version of the reasoned action approach to understanding and predicting volitional behavior. Specifically, the RAM represents a significant advancement in the field by expanding upon key propositions detailed within the Theory of Reasoned Action (TRA; Ajzen and Fishbein, 1980), Theory of Planned Behavior (TPB; Ajzen, 1985), the Integrative Model (Fishbein, 2008). In the RAM framework, the most direct antecedent of behavior is the formation of a behavioral intention. Logically, the formation of stronger behavioral intentions increases the likelihood that a behavior or set of behaviors will be carried out in the future. This conceptual framework further hypothesizes that the strength of behavioral intentions is influenced by individuals' overall attitude toward the behavior, the magnitude of perceived normative pressure to engage in the behavior, and perceived behavioral control (PBC) over the behavior (Fishbein and Ajzen, 2010). In general, holding more favorable attitudes, perceiving greater normative pressure, and greater PBC results in the formation of stronger behavioral intentions.

Following in the tradition of other reasoned action approaches, the RAM acknowledges that attitudes, perceived normative pressure, and PBC follow from specific beliefs individuals possess regarding a behavior. Specifically, three sets of beliefs have been identified as contributing to the formation of higher order RAM constructs: (1) behavioral beliefs, (2) normative beliefs, and (3) control beliefs (Fishbein and Ajzen, 2010). Behavioral beliefs are conceptualized as the perceived outcomes and experiential consequences associated with the performance—or non-performance—of a behavior. When aggregated behavioral beliefs underlie ones' overall evaluation of that behavior (i.e., attitude toward the behavior, Ajzen, 1991; Fishbein and Ajzen, 2010). Normative beliefs include both the perceived expectations and actions of important others. That is, normative beliefs include both injunctive (beliefs of whether others approve—or disapprove—of engaging in the behavior), and descriptive (beliefs regarding whether important others engage in the behavior themselves) components of normative influence. When aggregated, injunctive and descriptive normative beliefs determine the degree of perceived normative pressure to engage in a behavior. Finally, control beliefs refer to individuals' perceptions of factors—both personal and environmental—with the potential to facilitate or hinder the performance of the behavior. Within the RAM framework, the aggregation of control beliefs determines the overall level of perceived behavioral control (PBC) to carry out the behavior. It is assumed that behavioral, normative, and control beliefs established and altered through interactions with the larger environment (Fishbein and Ajzen, 2010). Since the advancement of the RAM, a substantial body of empirical evidence collected over the last half-century has demonstrated the utility of the reasoned action approach in predicting both intentions and behavior in a multitude of domains (for reviews see Godin and



Kok, 1996; Albarracín et al., 2001; Armitage and Conner, 2001). An overview of the RAM is presented in **Figure 1**.

Reasoned Action Studies of Academic Help-Seeking

The existing empirical investigations that have attempted to utilize the reasoned action approach to predict academic help-seeking report promising results, but have focused on very specific help-seeking behaviors. White et al. (2008) measured attitudes, subjective norms, PBC, and intentions to attend supplemental instruction tutoring sessions among a group of 1st-year undergraduate psychology students. In support of the reasoned action approach, attitudes and PBC were predictors of behavioral intention and behavioral intention predicted students' supplemental instruction attendance. In another examination, White et al. (2011) examined student intentions and attendance at statistics focused peer-tutoring sessions. In support of the reasoned action approach, attitudes and PBC measured early in the semester predicted learners' intentions to participate in peer-led study sessions. Furthermore, intentions significantly predicted actual later attendance. Finally, Allen et al. (2017) measured attitudes, subjective norms, PBC, and intentions to attend peer-assisted study sessions. Again, in support of the reasoned action approach, attitudes, subjective norms, and PBC predicted peer-assisted study session attendance. Notably, the influence of RAM components on study session attendance was mediated by behavioral intentions.

We believe there is great value in expanding these initial investigations beyond specific help-seeking behaviors. The narrow definition of help-seeking behavior used in past research (i.e., attendance at supplemental and peer tutoring sessions;

White et al., 2008, 2011; Allen et al., 2017) may have little practical utility for university officials concerned with factors contributing to students' decision to engage in academic help-seeking behaviors more broadly and their likelihood of utilizing institutionally-based sources of academic support. Further, prior investigations have contained methodological issues that limit their practical utility to educators and administrators—namely the failure to identify the specific beliefs which contribute to higher-order RAM constructs (White et al., 2008, 2011; Allen et al., 2017). While the RAM is a theoretical framework the is commonly used to predict volitional behaviors, results gained from empirical investigations can have important implications for behavior change interventions. That is, once the most important predictors of intentions have been identified (i.e., attitude, perceived normative pressure, and/or PBC), it becomes possible to design interventions targeting key beliefs underlying the important predictors in an attempt to alter intentions and future behavior. Thus, the identification of the most salient behavioral, normative, and control beliefs is needed to design interventions—an aspect of RAM investigation that is unfortunately often neglected in the existing literature (Fishbein and Ajzen, 2010).

Given the limitations present in the prior literature, the current examination was undertaken to fulfill the following goals. First, we conducted a belief-elicitation study to identify the most salient behavioral, normative, and control beliefs held by university students for the behavior of seeking out assistance from university-based sources of academic support, broadly defined. Furthermore, we set out to determine the general utility of the RAM in this domain by examining the degree to which direct measures of attitudes, perceived normative

pressure, and PBC predict student intentions to. In addition, we sought to inform the development of future interventions by examining the importance of individual behavioral, normative, and control beliefs.

METHOD (STUDY 1)

Participants

Data were collected from undergraduate students ($N = 125$, 91% Female, 85% Caucasian) attending a Midsized public university in the Midwestern United States. The mean age of participants was 20.59 ($SD = 3.76$).

Materials

Belief Elicitation Questionnaire

Participants responded to a series of open-ended items exploring their perceptions of: (1) the perceived advantages and disadvantages of academic help-seeking (behavioral beliefs), (2) individuals who are/are not likely to engage in and approve/disapprove of academic help-seeking behaviors (normative beliefs), and (3) factors that would make it easier or more difficult to engage in academic help-seeking behaviors (control beliefs). The construction of these items was guided by best practices for identifying salient behavioral beliefs, normative beliefs, and control beliefs within a target population as described by developers of the RAM (Fishbein and Ajzen, 2010). Past research in related domains has established the viability of this method for determining readily accessible beliefs (De Leeuw et al., 2015).

Procedure

Participants were recruited from an undergraduate research pool. All participants were current university students and received partial course credit in exchange for their involvement in the current study. In accordance with Institutional Review Board policy, all participants provided informed consent prior to their involvement in the study by indicating their willingness to participate in the current study using an online informed consent document. However, the requirement for written informed consent was waived by the Institutional Review Board given the anonymous nature of the online measures. All participants completed the belief elicitation questionnaire at their convenience using the Qualtrics survey management system. The items included in the belief elicitation questionnaire can be found **Appendix A in Supplementary Material**.

Content Analysis

To identify the most salient behavioral, normative, and control beliefs, two individuals independently reviewed responses and generated independent coding schemes. Subsequently, the two individuals created a master set of codes identifying dominant themes appearing in the data. Finally, a single rater revisited participant response to independently code the data using the master codes. Consistent with recommendations of Fishbein and Ajzen (2010), beliefs were chosen by frequency until the selected response categories accounted for 75% of all responses provided during the elicitation study. The resulting set of salient beliefs was

used to generate a targeted questionnaire assessing endorsement of particular behavioral, normative, and control beliefs.

METHOD (STUDY 2)

Participants

Data were collected from undergraduate students ($N = 176$, 81% female; 84% Caucasian) attending a mid-sized public university in the Midwestern United States. The mean age of participants was 20.95 ($SD = 4.93$).

Materials

Behavior of Interest

The behavioral category of interest in the current study was defined as “My using academic services offered by the university during the current semester.” Participants were also provided with specific examples of university-based sources of academic support (i.e., campus writing center, tutoring services, study skills training, etc.) to solidify participants’ understanding of the target behavior(s). It is important to note that our description of the behavioral category of interest was framed in the context of “academic services” and does not explicitly mention the term academic help-seeking. Prior research in the domain of academic help-seeking has demonstrated that certain subsets of learners equate help-seeking with personal incompetence (i.e., students demonstrating help avoidance; Butler, 1998; Karabenick, 2003). Therefore, we were concerned that participants may alter their responses in an effort to avoid the consideration of beliefs and opinions that could be threatening to the self-concept if the behavior of interest was explicitly framed in terms of “academic help-seeking.” However, we provided an in-depth definition of “academic services” that directed participants to only consider services that provide support with coursework (i.e., tutoring, supplemental instruction, etc.).

Attitudes

Participants’ attitudes toward using academic services offered by the university were assessed using the following 7-point semantic differential scales: good-bad, unpleasant-pleasant, harmful-beneficial, interesting-boring, foolish-wise, worthless-valuable. The items were designed to include both the experiential and instrumental components of attitudes (Fishbein and Ajzen, 2010). Responses provided to the 6 items were averaged to produce a reliable attitude measure (Cronbach’s $\alpha = 0.89$; McDonald’s $\omega = 0.90$), with higher scores indicating more positive attitudes toward using university-based academic services.

Perceived Normative Pressure

Participants responded to 5 items designed to measure the injunctive and descriptive components of normative influence using 7-point bipolar scales. Example items included: “Most people who are important to me think that I should use academic services offered by the university during the current semester” (1 = True, 7 = False); “Most people I respect and admire will use academic services offered by the university during the current semester” (1 = Unlikely, 7 = Likely). Participant responses

were averaged to create a reliable index of normative pressure (Cronbach's $\alpha = 0.71$; McDonald's $\omega = 0.72$), with higher values indicating increased perceived pressure to use university-based sources of academic support.

Perceived Behavioral Control (PBC)

Participants responded to 5 items designed to measure the capacity and autonomy components of PBC using 7-point bipolar scales. Example items included: "For me, to use academic services offered by the university during the current semester is under my control" (1 = not at all, 7 = completely), "If I really wanted to I could use academic services offered by the university during the current semester" (1 = likely, 7 = unlikely). Participant responses were averaged to create a reliable index of PBC (Cronbach's $\alpha = 0.82$; McDonald's $\omega = 0.82$), with greater values indicating higher perceptions of control over their ability to use university-based sources of academic support.

Behavioral Intention

Participants' intentions to use university-based sources of academic support were assessed using five items measured on 7-point bipolar scales. Example items included: "I expect to use academic services offered by the university during the current semester" (1 = true, 7 = false); "I plan to use academic services offered by the university during the current semester" (1 = agree, 7 = disagree). Participant responses were averaged to create a reliable measure (Cronbach's $\alpha = 0.91$; McDonald's $\omega = 0.92$), with greater scores indicating stronger intentions to use university-based sources of academic support.

Behavioral Beliefs

Participants were presented with a list of 12 potential outcomes associated with the use of university-based academic services that were identified during the elicitation study (e.g., increased academic performance, development of important academic skills). Participants rated the likelihood that using university-based academic services would result in each of the presented outcomes, and the perceived desirability of each outcome using 7-point bi-polar scales (−3 = extremely unlikely, +3 = extremely likely; 1 = Bad, 7 = Good, respectively).

Injunctive Normative Beliefs

Participants were presented with a list of 6 social referents who may have opinions regarding whether they should or should not use university-based sources of academic support (e.g., professors, close friends, family members). Participants reported whether each of the identified referents would approve of their utilizing academic services offered by the university, as well their motivation to comply with each of the presented referents using 7-point bipolar adjective scales (−3 = strongly disagree, +3 = strongly agree; 1 = strongly disagree, +3 = strongly agree, respectively).

Descriptive Normative Beliefs

Participants were presented with a list of 15 important social referents who they look to in order to determine if a particular behavior—or set of behaviors—should or should not be done (e.g., high-performing students, students concerned with their

TABLE 1 | Means, standard deviations, and correlation coefficients for the theory of planned behavior components ($N = 138$).

	Mean	SD	Correlation coefficients			
			ATT	PNP	PBC	INT
ATT	5.32	1.17	1			
PNP	4.85	1.14	0.53**	1		
PBC	5.91	1.17	0.46**	0.38**	1	
INT	4.43	1.73	0.55**	0.72**	0.41**	1

* $p < 0.05$; ** $p < 0.001$; ATT, Attitude; PNP, Perceived Normative Pressure; PBC, Perceived Behavioral Control; INT, Behavioral Intention.

academic performance). Participants reported their perceptions regarding the probability that the listed social referents would use university-based academic services and reported their desire to be like each of the presented referents using 7-point bipolar adjective scales (−3 = False, +3 = True; 1 = False, 7 = True, respectively).

Control Beliefs

Participants were presented with a list of 12 factors with potential to influence their ability to use university-based sources of academic support (e.g., possessing extra time, cost of academic services). Participants reported the likelihood of occurrence for each factor and rated if the listed factors would make it easier or more difficult to utilize university-based sources of academic support using (−3 = Extremely Likely, +3 = Extremely Unlikely; 1 = Easier, 7 = More Difficult, respectively).

Procedure

Participants were recruited using a standard undergraduate research pool. More specifically, all participants were current university students and received partial course credit in exchange for their involvement in the current study. All participants provided informed consent prior to their involvement in the study by indicating their willingness to participate in the current study using an online informed consent document. However, the requirement for written informed consent was waived by the Institutional Review Board given the anonymous nature of the online measures. All measures were presented and completed using the Qualtrics survey management system. The presentation of the instruments was counterbalanced to prevent order effects. The instruments used in study two can be found **Appendix B in Supplementary Material**.

RESULTS

Descriptive Statistics and Correlations

Examination of descriptive statistics for RAM components (i.e., Attitudes, Perceived Normative Pressure, PBC, and Behavioral Intentions) indicated participants held moderately favorable attitudes toward university-based academic supports, perceived moderate social pressure to utilize university-based academic supports, believed they had high control over using university-based academic services, and reported strong intentions to use university-based academic supports (see **Table 1**).

TABLE 2 | Means, standard deviations, and correlation coefficients for the reasoned action model components ($N = 138$).

Variable	B	SE	β	R	R ²
Predicting Behavioral Intention				0.76	0.57
Attitudes	0.28	0.09	0.19*		
Perceived normative pressure	0.88	0.08	0.58**		
PBC	0.14	0.08	0.10		

* $p < 0.05$; ** $p < 0.001$; $F_{(3, 179)} = 80.08$, $p < 0.001$, $R^2 = 0.57$.

A series of correlational analyses were conducted to explore the relationship among RAM components. Consistent with predictions of the RAM, Attitudes ($r = 0.55$, $p < 0.001$), Perceived normative pressure ($r = 0.72$, $p < 0.001$), and PBC ($r = 0.41$, $p < 0.001$) shared statistically significant, positive associations with behavioral intentions. Further, our results revealed statistically significant, positive relationships among Attitudes, Perceived Normative Pressure, PBC (see **Table 1**).

Multiple Regression Analysis

Multiple regression analysis was used to investigate the relative contribution of attitudes, perceived normative pressure, and PBC to behavioral intentions. Given the relatively high correlations among the predictor variables, it was decided to explore for evidence of multicollinearity in the current examination. VIF and tolerance values were shown to fall within accepted ranges suggesting there were no issues with multicollinearity in the current examination.

As shown in **Table 2**, results revealed RAM components accounted for a significant amount of variability in participant's behavioral intentions to engage in academic help-seeking, $F_{(3, 175)} = 77.69$, $p < 0.001$, $R^2 = 0.56$. Further, examination of the standardized regression coefficients revealed perceived normative pressure was the most important predictor ($\beta = 0.58$, $p < 0.001$), followed by attitudes ($\beta = 0.19$, $p < 0.01$). These results suggest that holding more favorable attitudes and experiencing increased normative pressure is associated with stronger intentions to seek help with academic difficulties from academic supports offered by the university. Interestingly, PBC was not a significant predictor of behavioral intentions ($\beta = 0.10$, $p > 0.05$).

Behavioral, Normative, and Control Beliefs

One of the most powerful aspects of the RAM is the proposition that individual beliefs contribute to the formation of constructs (i.e., Attitudes, Perceived Normative Pressure, PBC) that guide future behavior through their impact on behavioral intentions. To identify and examine the contribution of specific beliefs to these higher-order constructs we examined the relationships among individual belief-based items and direct measures of attitudes, perceived normative pressure, and PBC. In accordance with the expectancy-value model of attitude (Fishbein and Ajzen, 1975; Feather, 1982), we utilized the multiplicative combination rule to create product terms that were then correlated with direct measures for each of the higher-order RAM constructs: belief

strength (behavioral) x outcome evaluation, and belief strength (normative) x motivation to comply (Fishbein and Ajzen, 2010). It is important to note that the *post hoc* analyses focused on behavioral beliefs and normative beliefs, given that attitudes and perceived normative pressure were found to be the primary predictors of behavioral intentions. Thus, we did not examine control beliefs in detail given that PBC was not a significant predictor of intentions.

Contribution of Behavioral Beliefs to Attitude

Our results indicated that the belief that using university-based academic services would provide students with “access to extra help with coursework” shared the strongest relationship with attitudes. Other positive beliefs included that seeking help would lead to “increased knowledge,” “increased academic performance,” and the “development of important academic skills.” In contrast, our results revealed that the belief that using university-based academic supports would “increase confusion” and the belief that the use of university-based academic supports would “lead to students becoming dependent on academic services offered by the university” were not related to participants' attitudes. The remaining behavioral beliefs items were shown to share statistically significant, but weaker relationship with attitude (see **Table 3**).

Contribution of Injunctive Normative Beliefs to Perceived Normative Pressure

Examination of correlational coefficients indicated all injunctive normative beliefs shared moderately strong positive associations with perceived normative pressure to utilize university-based sources of academic support. Specifically, participants' perceptions that the following referents believe they should or should not seek university academic support were predictive of increased perceived normative pressure: family members, students who excel academically, close friends, academic advisors, peers and professors (see **Table 4**). Of these referents, family members appeared to be most strongly influential.

Contribution of Descriptive Normative Beliefs to Perceived Normative Pressure

Our results indicated that the majority of normative beliefs significantly contributed to perceived normative pressure to seek university academic support. Specifically, the belief that students who are driven to succeed use university-based academic supports was most strongly related to perceived normative pressure, followed by beliefs focused on students who are “required” to use academic services, students who excel academically, close friends, students who enjoy receiving extra help, peers, students who are members of Greek organizations, students who live on campus, and students who experience anxiety when receiving academic help. Interestingly, participants' perceptions regarding whether students with busy schedules, students who live off-campus, students who believe they do not need extra help with course work, students who are concerned with their academic performance, students who are struggling academically, and students who are not aware of university-based

TABLE 3 | Behavioral beliefs and correlations with attitudes.

Behavioral belief	Belief strength (BS)		Outcome evaluation (OS)		BS X OS		Correlation with attitude
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Having access to extra help with coursework	5.86	1.38	6.48	1.01	38.37	11.72	0.32**
Increased academic performance	5.83	1.31	6.71	0.67	39.23	10.17	0.25**
Developing important academic skills	5.75	1.38	6.58	0.83	38.15	10.95	0.27**
Increased knowledge	5.75	1.43	6.57	0.78	37.93	11.00	0.24**
Being better prepared to complete upcoming assignments	5.82	1.24	6.59	0.75	38.65	10.04	0.16*
Increased confusion	3.06	1.97	2.82	2.10	10.18	12.81	-0.04
Exposed to additional perspectives	5.56	1.39	6.14	1.25	34.88	12.08	0.20**
Being able to obtain feedback	5.80	1.34	6.36	1.06	37.20	11.46	0.19**
Exposed to individuals to who support academic success	5.82	1.28	6.46	0.92	38.11	10.58	0.20**
Becoming dependent on academic services	3.95	1.978	3.41	2.08	14.86	14.06	0.09
Becoming aware of areas of weakness	5.62	1.407	6.28	1.03	35.69	11.71	0.18*

TABLE 4 | Injunctive normative beliefs and correlations with normative pressure.

Normative referent	Belief strength (BS)		Motivation to comply (MC)		BS X MC		Correlation with perceived normative pressure <i>r</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Professors	5.82	1.53	6.26	1.01	36.52	11.30	0.35**
Close Friends	4.12	1.62	4.64	1.65	20.14	11.70	0.42**
Academic advisors	5.52	1.57	5.72	1.43	32.65	12.79	0.42**
Students who excel academically	4.97	1.60	5.32	1.63	27.26	13.13	0.45**
Peers	4.25	1.54	4.46	1.52	19.94	11.35	0.38**
Family members	5.34	1.70	5.56	1.56	30.58	13.33	0.51**

academic services use/do not use university-based academic supports did not contribute to subjective norms (see **Table 5**).

DISCUSSION

Seeking help with academic difficulties has been repeatedly linked to positive academic outcomes among learners within K-16 settings (Kulik et al., 1983; Gall, 1985; Newman, 1990, 2000; Karabenick, 2004; Ryan et al., 2005). Given the documented benefits, universities devote considerable resources to the establishment and maintenance of academic support services designed to support academics (McFarland et al., 2018). However, despite the demonstrated benefits, learners often fail to seek help when confronted with academic challenges that exceed their capabilities (Karabenick, 1998, 2003). In an effort to better understand the factors underlying students' decisions to engage in or not to engage in academic help-seeking, we investigated the determinants of students' intentions to seek help from university-based sources of academic support using the RAM. Our results indicated that perceived normative pressure and attitudes accounted for a considerable amount of the variability in intentions to seek help. Further, our examination identified a set of behavioral and normative beliefs that contributed significantly to overall attitudes and perceived pressure to utilize academic support services.

One particularly noteworthy finding is the strong impact of normative pressure on behavioral intentions. This result is

contrary to some past reasoned action research. In a recent meta-analysis investigating the efficacy of the Theory of Planned Behavior, Armitage and Conner (2001) found subjective norms to be only weakly related to behavioral intentions. They reasoned the poor predictive power of subjective norms was the function of: (1) measurement related issues (i.e., use of poorly constructed survey instruments) and (2) the failure to isolate the influence of different types of normative pressure on behavioral intentions. Given these issues, our normative measure was designed in accordance with the best practices described by developers of the RAM (Fishbein and Ajzen, 2010), including items assessing the unique contribution of both injunctive and descriptive normative pressure. In fact, older reasoned action approaches (i.e., the Theory of Planned Behavior, and the Theory of Reasoned Action) did not include the concept of descriptive normative pressure. As such, we believe our findings better highlight the utility of normative pressure in the prediction of behavioral intentions.

The RAM is most often presented as a conceptual framework for explaining how beliefs impact behavioral intentions and subsequent behavior through their influence on attitudes, perceived normative pressure, and PBC (Fishbein and Ajzen, 2010). However, and most importantly, the RAM also is a framework for the design of interventions to elicit behavior change. Specifically, the RAM posits behavioral changes can be achieved by altering the individual beliefs that contribute to the formation of higher-order RAM constructs (Fishbein and Ajzen, 2010). As such, the development of an effective

TABLE 5 | Descriptive normative beliefs and correlations with normative pressure.

Normative referent	Belief strength (BS)		Motivation to comply (MC)		BS X MC		Correlation with perceived normative pressure <i>r</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Students who struggle academically	3.32	1.96	1.14	0.59	3.81	3.20	0.01
Students who excel academically	4.77	1.67	6.72	0.85	32.37	12.06	0.36**
Students who are concerned with their academic performance	5.50	1.51	4.91	2.24	27.55	15.58	0.08
Students who are driven to succeed	5.42	1.49	6.52	0.98	35.51	11.83	0.38**
Students who are anxious to receive academic help	4.08	2.19	2.78	1.91	12.93	13.37	0.15**
Students who like to receive extra help	5.80	1.42	5.16	1.63	30.42	13.09	0.33**
Students with busy schedules	2.72	1.53	3.44	1.84	10.11	9.30	0.14
Students who are not aware of university-based academic services	1.82	1.46	1.70	1.20	3.17	3.51	0.00
Students who live off campus	2.85	1.44	4.53	2.06	13.55	10.53	0.14
Peers	3.66	1.58	4.61	1.50	17.41	10.38	0.30**
Close friends	3.31	1.68	5.03	1.56	17.20	11.26	0.34**
Students who do not believe they need help with their coursework	2.02	1.54	2.67	1.74	5.38	6.27	-0.08
Students required to use academic services	5.84	1.55	3.40	1.81	19.28	12.11	0.37**
Students who live on-campus	4.79	1.35	3.72	1.98	18.10	11.72	0.26**
Students who are members of Greek organizations	4.42	1.50	3.11	2.20	14.30	13.08	0.27**

intervention program begins with the identification of salient beliefs that are the primary determinants of attitude, perceived normative pressure, and PBC toward the behavior of interest. To our knowledge, the present study is the first of its kind to identify the specific, salient beliefs related to seeking help from university-based sources of academic support and determining their relationship to RAM components. We believe our identification of salient beliefs related to university-based sources of academic support may prove useful for university educators and administrators interested in the development of empirically-based intervention efforts to increase academic help-seeking. Specifically, our results suggest that students' intentions to use university-based academic services may be increased by developing information campaigns emphasizing social norms, particularly the important social referents that approve of the behavior (e.g., family, professors, friends) and also those that are likely to engage in the behavior themselves (e.g., successful and motivated students, friends and peers). Perhaps less important, but still worthy of inclusion, are messages emphasizing the benefits (e.g., having access to extra help, skill development) associated with the use of academic support services offered by the university appear important to emphasize.

Of course, the current study has limitations that should be noted. First, our participants were largely White, young adults from a single Midwestern (U.S.) university. As a result, it will be important for future work to replicate the current study across different university and college student samples that vary in sociodemographic variables. Secondly, we did not collect data

related to participants' actual use of university-based sources of academic support. Although it is well established that changes in behavioral intentions lead to changes in actual behavior, (Webb and Sheeran, 2006), we were unable to document the intention-behavior relationship in this domain. Future work can address this limitation through the adoption of research methods that allow the recording of either self-reported or objective measures of actual help-seeking behavior across time. Examples include the use of diaries and attendance records (e.g., White et al., 2008, 2011).

CONCLUSION

Seeking academic help from university support services is an effective, but unfortunately under-utilized, behavior. The failure to seek out help is problematic not only for students, but also for university officials who must justify the expenses of academic support programs. The results of the present research provide support for the use of the RAM in predicting student intentions to use university academic support, with perceived normative pressure and attitudes emerging as significant predictors. Furthermore, specific normative and behavioral beliefs were identified that may be important for the design of empirically-based interventions to increase student academic help-seeking. Subsequent studies are needed to replicate the present findings, document that intentions predict actual behavior, and to design and test behavioral interventions to increase the usage of university-based academic support.

DATA AVAILABILITY

The datasets generated for this study are available on request to the corresponding author.

ETHICS STATEMENT

The current study was approved by the Ball State University Institutional Review Board. Participants were recruited through an undergraduate research pool. All participants provided informed consent prior to completing the study materials.

REFERENCES

- Ajzen, I. (1985). "From intentions to actions: a theory of planned behavior," in *Action-Control: From Cognition to Behavior*, eds J. Kuhl and J. Beckmann (Heidelberg: Springer), 1–39.
- Ajzen, I. (1991). The theory of planned behavior. *Organiz. Behav. Human Decision* 50, 179–211. doi: 10.1016/0749-5978(91)90020-T
- Ajzen, I., and Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Albarracín, D., Johnson, B. T., Fishbein, M., and Muellerleile, P. A. (2001). Theories of reasoned action and planned behavior as models of condom use: a meta-analysis. *Psychol. Bull.* 127, 142–161. doi: 10.1037/0033-2909.127.1.142
- Allen, P. J., Tonta, K. E., Haywood, S. B., Pereira, R. M., and Roberts, L. D. (2017). Predicting peer-assisted study session attendance. *Active Learn. High. Edu.* doi: 10.1177/1469787417735613
- Ames, R., and Lau, S. (1982). An attributional analysis of student help-seeking in academic settings. *J. Educ. Psychol.* 74, 414–423. doi: 10.1037/0022-0663.74.3.414
- Armitage, C. J., and Conner, M. (2001). Efficacy of the theory of planned behaviour: a meta-analytic review. *Br. J. Soc. Psychol.* 40, 471–499. doi: 10.1348/014466601164939
- Butler, R. (1998). Determinants of help seeking: relations between perceived reasons for classroom help-avoidance and help-seeking behaviors in an experimental context. *J. Educ. Psychol.* 90, 630–643. doi: 10.1037/0022-0663.90.4.630
- Butler, R., and Neuman, O. (1995). Effects of task and ego achievement goals on help-seeking behaviors and attitudes. *J. Educ. Psychol.* 87, 261–271. doi: 10.1037/0022-0663.87.2.261
- Corno, L. (1986). The metacognitive control components of self-regulated learning. *Contemp. Educ. Psychol.* 11, 333–346. doi: 10.1016/0361-476X(86)90029-9
- De Leeuw, A., Valois, P., Ajzen, I., and Schmidt, P. (2015). Using the theory of planned behavior to identify key beliefs underlying pro-environmental behavior in high-school students: implications for educational interventions. *J. Environ. Psychol.* 42, 128–138. doi: 10.1016/j.jenvp.2015.03.005
- Dillon, J. T. (1982). The multidisciplinary study of questioning. *J. Educ. Psychol.* 74, 147–165. doi: 10.1037/0022-0663.74.2.147
- Duckworth, A. L., Peterson, C., Matthews, M. D., and Kelly, D. R. (2007). Grit: perseverance and passion for long-term goals. *J. Pers. Soc. Psychol.* 92, 1087–1101. doi: 10.1037/0022-3514.92.6.1087
- Farrington, C. A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T. S., Johnson, D. W., et al. (2012). *Teaching Adolescents to Become Learners: The Role of Noncognitive Factors in Shaping School Performance—A Critical Literature Review*. Consortium on Chicago School Research.
- Feather, N. T. (1982). (Ed.). *Expectations and Action: Expectancy-Value Models in Psychology*. Hillsdale, NJ: Erlbaum.
- Fishbein, M. (2008). A reasoned action approach to health promotion. *Med. Decis. Making* 28, 834–844.
- Fishbein, M., and Ajzen, I. (1975). *Belief, Attitude, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.

AUTHOR CONTRIBUTIONS

CT developed the study, collected the data, analyzed data, and contributed to each section of the manuscript. MT assisted with data analysis and contributed to each section of the manuscript.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/feduc.2019.00059/full#supplementary-material>

- Fishbein, M., and Ajzen, I. (2010). *Predicting and Changing Behavior: The Reasoned Action Approach*. New York, NY: Taylor and Francis.
- Gall, S. (1985). Help-seeking behavior in learning. *Rev. Res. Edu.* 12, 55–90. doi: 10.2307/1167146
- Godin, G., and Kok, G. (1996). The theory of planned behavior: a review of its applications to health-related behaviors. *Am. J. Health Promo.* 11, 87–98. doi: 10.4278/0890-1171-11.2.87
- Good, T. L., Slavings, R. L., Harel, K. H., and Emerson, H. (1987). Student passivity: a study of question asking in K-12 classrooms. *Sociol. Educ.* 60:181. doi: 10.2307/2112275
- Han, C., Farruggia, S. P., and Moss, T. P. (2017). Effects of academic mindsets on college students' achievement and retention. *J. Coll. Stud. Dev.* 58, 1119–1134. doi: 10.1353/csd.2017.0089
- Karabenick, S. A. (1998). "Help seeking as a strategic resource," in *Strategic Help Seeking: Implications for Learning and Teaching*, ed S. A. Karabenick (Mahwah, NJ: Lawrence Erlbaum Associates), 1–11.
- Karabenick, S. A. (2003). Seeking help in large college classes: a person-centered approach. *Contemp. Educ. Psychol.* 28, 37–58. doi: 10.1016/S0361-476X(02)00012-7
- Karabenick, S. A. (2004). Perceived achievement goal structure and college student help seeking. *J. Educ. Psychol.* 96, 569–581. doi: 10.1037/0022-0663.96.3.569
- Karabenick, S. A., and Berger, J.-L. (2013). "Help seeking as self-regulated learning strategy," in *Applications of Self-Regulated Learning Across Diverse Disciplines: A tribute to Barry J. Zimmerman*, eds H. Bembunty, T. Cleary, and A. Kitsantas (Charlotte, NC: Information Age Publishing), 358–396.
- Karabenick, S. A., and Gonida, E. N. (2018). "Academic help seeking as a self-regulated learning strategy: current issues, future directions," in *Educational Psychology Handbook Series. Handbook of Self-regulation of Learning and Performance*, eds D. H. Schunk and J. A. Greene (New York, NY: Routledge/Taylor & Francis Group), 421–433.
- Karabenick, S. A., and Knapp, J. R. (1991). Relationship of academic help seeking to the use of learning strategies and other instrumental achievement behavior in college students. *J. Educ. Psychol.* 83, 221–230.
- Karabenick, S. A., and Knapp, J. R. (1998). Help-seeking and the need for academic assistance. *J. Educ. Psychol.* 80, 406–408.
- Karabenick, S. A., and Newman, R. S. (eds.). (2006). *Help Seeking in Academic Settings: Goals, Groups, and Contexts*. Mahwah, NJ: Erlbaum.
- Knapp, J. R., and Karabenick, S. A. (1988). Incidence of formal and informal academic help-seeking in higher education. *J. Coll. Stud. Dev.* 29, 223–227.
- Kulik, C. L. C., Kulik, J. A., and Shwalb, B. J. (1983). College programs for high-risk and disadvantaged students: a meta-analysis of findings. *Rev. Educ. Res.* 53, 397–414. doi: 10.3102/00346543053003397
- Magnusson, J. L., and Perry, R. P. (1992). Academic help-seeking in the university setting: The effects of motivational set, attributional style, and help source characteristics. *Res. High. Educ.* 33, 227–245. doi: 10.1007/BF00973580
- Makara, K. A., and Karabenick, S. A. (2013). "Characterizing sources of academic help in the age of expanding educational technology: a new conceptual framework," in *Advances in Help-Seeking Research and Applications: The Role of Emerging Technologies*, eds S. A. Karabenick and M. Puustinen (Charlotte, NC: Information Age Publishing).

- McFarland, J., Hussar, B., Wang, X., Zhang, J., Wang, K., and Rathbun, A., et al. (2018). The Condition of Education 2018. NCES 2018-144. *National Center for Education Statistics*.
- Nelson-Le Gall, S. (1981). Help-seeking: An understudied problem-solving skill in children. *Develop. Rev.* 1, 224–246. doi: 10.1016/0273-2297(81)90019-8
- Newman, R. S. (1990). Children's help-seeking in the classroom: the role of motivational factors and attitudes. *J. Educ. Psychol.* 82, 71–80. doi: 10.1037/0022-0663.82.1.71
- Newman, R. S. (1994). "Adaptive help seeking: a strategy of self-regulated learning" in *Self-regulation of Learning and Performance: Issues and Educational Applications*, eds D. H. Schunk and B. J. Zimmerman (Mahwah, NJ: Erlbaum), 283–301.
- Newman, R. S. (1998). Adaptive help-seeking: a role of social interaction in self-regulated learning. in *Strategic Help-Seeking: Implications for Learning and Teaching*, ed S. A. Karabenick (Mahwah, NJ: Erlbaum), 13–37.
- Newman, R. S. (2000). Social influences on the development of children's adaptive help seeking: the role of parents, teachers, and peers. *Develop. Rev.* 20, 350–404. doi: 10.1006/drev.1999.0502
- Newman, R. S. (2002). How self-regulated learners cope with academic difficulty: the role of adaptive help seeking. *Theory Pract.* 41, 132–138. doi: 10.1207/s15430421tip4102_10
- Ryan, A. M., Patrick, H., and Shim, S. (2005). Differential profiles of students identified by their teacher as having avoidant, appropriate, or dependent help-seeking tendencies in the classroom. *J. Educ. Psychol.* 97, 275–285. doi: 10.1037/0022-0663.97.2.275
- Shim, S. S., Kiefer, S. M., and Wang, C. (2013). Help seeking among peers: the role of goal structure and peer climate. *J. Educ. Res.* 106, 290–300. doi: 10.1080/00220671.2012.692733
- Shunk, D. H. (1986). Verbalization and children's self-regulated learning. *Contemp. Educ. Psychol.* 11, 347–369. doi: 10.1016/0361-476X(86)90030-5
- Snow, R. E., Corno, L., and Jackson, D. (1996). "Individual differences in affective and conative functions," in *Handbook of Educational Psychology*, eds D. C. Berliner, and R. C. Calfee (New York, NY: Simon and Schuster Macmillian), 243–310.
- Thomas, C. L., Cassidy, J. C., and Heller, M. L. (2017). The influence of emotional intelligence, cognitive test anxiety, and coping strategies on undergraduate academic performance. *Learn. Individ. Differ.* 55, 40–48. doi: 10.1016/j.lindif.2017.03.001
- U.S. Department of Education, National Center for Education Statistics (2015). *Comparative Indicators of Education in the United States and Other G-20 Countries: 2015*. NCES 2016-100.
- U.S. Department of Education, National Center for Education Statistics (2018). *Integrated Postsecondary Education Data System (IPEDS), Spring 2008 Through Spring 2015, Fall Enrollment Component; and Spring 2009 Through Spring 2016, Finance Component*.
- Webb, T. L., and Sheeran, P. (2006). Does changing behavioral intentions engender behavior change? a meta-analysis of the experimental evidence. *Psychol. Bull.* 132, 249–268. doi: 10.1037/0033-2909.132.2.249
- White, K. M., O'Connor, E. L., and Hamilton, K. (2011). In-group and role identity influences on the initiation and maintenance of students' voluntary attendance at peer study sessions for statistics. *Br. J. Edu. Psychol.* 81, 325–343. doi: 10.1348/000709910X513258
- White, K. M., Thomas, I., Johnston, K. L., and Hyde, M. K. (2008). Predicting attendance at peer-assisted study sessions for statistics: role identity and the theory of planned behavior. *J. Soc. Psychol.* 148, 473–491. doi: 10.3200/SOCP.148.4.473-492
- Zimmerman, B. J. (1986). Becoming a self-regulated learner: which are the key subprocesses? *Contemp. Educ. Psychol.* 11:307313. doi: 10.1016/0361-476X(86)90027-5
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: an overview. *Theory Pract.* 41, 64–70. doi: 10.1207/s15430421tip4102_2

Conflict of Interest Statement: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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