



## **Technostressors and the Coping Mechanism of Academic Librarians in Davao City, Philippines**

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### **ABSTRACT**

Technostress is a modern disease of adaptation affecting workers caused by an inability to cope with the new computer technologies in a healthy manner. Coping levels of 57 academic librarians is determined using their responses to 3 sets of questionnaires on customized personal profile, Ragu-Nathan's technostressors, and Lazarus' coping mechanism, which were all highly-validated at 4.14. Means and Pearson r reveal low levels from overload, invasion, complexity, insecurity, and uncertainty; and, moderate levels in confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem solving, and positive reappraisal. Significant relationship exists between techno-stressors and coping mechanism, with academic librarians practicing positive reappraisal coping. In order to mitigate technostressors, library heads are urged to regularly conduct seminars and workshops on accepting responsibility, escape-avoidance, self-controlling, confrontive, and distancing coping; and, organize technology-based training.

**Keywords :** Technostressors, Coping Mechanism, Academic Librarians, Davao City

### **1. INTRODUCTION**

Library and information personnel in colleges and universities now work assiduously in networked environments where bigger, better, and more technology remains one of the constant ways they can manage their jobs. Technology evolution (Al-Qualiaf, 2006) implies for library operations to change rapidly that librarians need to adapt to new plans, tasks and activities. Technology, however, can cause stress. For those who use it, and find it hard to cope with stressful jobs, technology affect workers psychologically, emotionally, physically, socially, and increased mental workload (Bakke, et al., 2011).

Craig Brod, a clinical psychologist, coined technostress in 1984. Technostress is a modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner which manifests itself in two distinct but related ways: the struggle to accept computer technology, and in the more specialized manner, over-identification with computer technology. Ennis (2005) pointed six primary causes

of technostress: lack of training, increased workload, reliability of technology, the changing role of librarians, pace of change, and lack of standardization, with the last two appearing to be the most stressors.

### **1.a. Technostressors**

Technostress has become a serious issue for both information technology (IT) users, and professionals due to its potential effect on mental health and on-the-job productivity. Employers strategize mechanisms on how to cope with the trend to make human resources increase production instead of suffering from poor performance (Tu, et al., 2005). People employ coping strategies whenever they find themselves in uncomfortable, or unsatisfactory situations, and when they do not possess the desirable level of comfort or satisfaction (Ansourian, 2008).

Technostressors is studied along five sources, namely: overload, invasion, complexity, insecurity, and uncertainty. Techno-overload is a situation where use of information system forces professionals to work faster. Mobile computing devices together with social networking and collaborative applications make it possible to process simultaneous streams of real time information, resulting in information overload, interruptions, and multitasking. Multitasking implies simultaneous work on different applications and tasks, trying to do more in less time, and experiencing tension (Tarafdar, et.al., 2007).

Techno-invasion is when professionals can potentially be reached anywhere and anytime, and feel the need to be constantly connected. The regular workday extends into family hours including vacations; “not connecting” becomes disquieting. Individuals feel tethered to these technologies, and experience intrusion on their time and space, hence, they experience frustration and stress (Tarafdar, et.al., 2007).

Techno-complexity is associated with information system that forces professionals to spend time and effort in learning and understanding how to use new applications, vendor pressures to keep using the latest hardware, software, and applications have increased, technical capabilities and terminology associated with information system have become more complex. Users can thus find the variety of applications, functions, and jargon, intimidating and difficult to understand, and consequently, feel stressed (Tarafdar, et.al., 2007).

Techno-insecurity is when users feel threatened about losing their jobs to other people who have a better understanding of new information system. It is common to find newer, often younger recruits, who come equipped with a higher comfort level with, and greater inclination, and enthusiasm to use new information system. Existing professionals may, thus, feel insecure or cynical about information system, leading to tension and stress (Tarafdar, et.al.2007).

Techno-uncertainty refers to contexts where continuing changes and upgrades to information system do not give professionals a chance to develop a base of experience for a particular application or system. Even after implementation, individuals are apprehensive about using them because applications take time to stabilize, and documentation and information technology department support may be poor (Tarafdar, et.al., 2007).

### **1.b. Coping Mechanisms**

Lazarus and Folkman (1984) identified eight coping mechanism strategies: confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem solving, and positive reappraisal.

Confrontive coping is an aggressive effort to alter the situation with some degree of hostility and risk-taking described as anger as a result of frustrating situation, or may be due to the behavior of another individual (Lazarus and Folkman, 1984).

Distancing describes cognitive efforts to detach oneself and to minimize the significance of the situation described as denial. Leana and Feldman (1995) found a positive association between distancing, although those who used distancing were also more likely to be dissatisfied with their new job.

Self-controlling describes efforts to regulate one's feelings and actions that are difficult to achieve (Weiten and Lloyd, 2006). Fortunately, the last several decades have produced major advances in the technology of self-control. These advances have emerged from research on behavior modification, an approach to controlling behavior that utilizes the principles of learning and conditioning.

Seeking social support describes efforts to seek informational support, tangible support, and emotional support. Closeness of friends and colleagues will help individuals to cope with that kind of stress or feeling (Newstrom, 2002). Social support is information and feedback from others that one is loved and cared for, esteemed and valued, and included in a network of communication and mutual obligation. Social support (Santhrock, 2001), especially diverse social ties, help people cope with stress and live healthier lives.

Accepting responsibility is acknowledging one's own role in the problem with a concomitant theme of trying to put things right. Kaelin (2008) says that accepting responsibility for everything that happens in our life a whole lot easier, and once we do that, it is so much easier to feel solid, grounded and empowered.

Escape-avoidance is described as wishful thinking and behavioral efforts to escape or avoid the problem which is bargaining. Aldwin (2007) identifies controllability of the problem as a key in evaluating the effectiveness approach-avoidance coping styles. Two other factors are the point in time that outcome is assessed, and the goodness of fit between the coping style and situational demands. The avoidant strategies are more effective in reducing emotional distress in the short term, while approach strategies are more effective over the long term.

Planful problem-solving is a deliberate problem-focused efforts to alter the situation, coupled with an analytic approach to solving the problem. This is described as acceptance. Eshenbeck (2008) as cited by Divino (2011) says that problem-focused coping can work quite well. Most people use people-focused coping to successfully deal with controllable stressful events. Dewe, O'Driscoll and Cooper (2010), state that problem-focused coping tends to be more useful when one feels that he or she can actually do something about the situation. Problem-focused coping is more likely to head to a more positive health outcome.

Positive reappraisal is an effort to create positive meaning by focusing on personal growth that often has a religious dimension. Positive reappraisal is an adaptive process by which stressful events are re-construed as benign, valuable, or beneficial (Schweitzer, 2011). These coping mechanisms refer to specific efforts, both behavioral and psychological, that individuals employ to reduce or minimize stressful events. The predominance of one type of strategy over another is determined, in part, by personal style and also by the type of stressful event.

In summary, stress-coping theory suggests that stress from the physical and social environment generates a state of internal arousal which influenced coping.

## **2. PURPOSE OF THE STUDY**

This study is to find out the relationship between technostressors and the coping mechanism of academic librarians in Davao City. Specifically, the study seeks for answers to the following questions: (1) what is the extent of technostressors experienced by academic librarians in terms of techno-overload, techno-invasion, techno-complexity, techno-insecurity, and techno-uncertainty; (2) what is the level of coping mechanism of academic

librarians in terms of confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem-solving, and positive reappraisal; and, (3) is there a significant relationship between technostressors and the coping mechanism of academic librarians? Further, this study worked on the hypothesis that there is no significant relationship between technostressors and coping mechanism.

### 3. METHODOLOGY

This study was anchored on Lazarus and Folkman's (1984) cognitive-phenomenological theory of stress and coping. The theory suggests that an individual experiences stress due to stress-creating factors or conditions, and that coping behavior is influenced by coping resources, including control beliefs, self-esteem, neuroticism, denial, and social support.

Descriptive-correlation was used in investigating the main research problem, sub-problems and hypotheses on technostressors, and coping mechanism. Data were collected through a researcher-constructed questionnaire, a modified questionnaire formulated by Lazarus (1991) and Folkman (1984) for coping mechanisms, and Ragu-Nathan, Tarafdar, and Ragu-Nathan (2008) for technostressors. Experts validated both the constructed and the modified questionnaires at a high validity of 4.14. Responses to technostressors and coping mechanisms were interpreted through a range of means, and their corresponding description. These are presented in Table 1.

Table 1. Interpretation of Responses to Technostressors and Coping Mechanism

Range of Means	Technostressor		Coping mechanism	
	description	happens	description	is
4.50–5.00	Very Highly Stressed (VHS)	all the time	Very Much Extensive (VME)	practiced at all times
3.50–4.49	Highly Stressed (HS)	frequently, but not all the time	Much Extensive (ME)	practiced, but not all the time
2.50–3.49	Moderately Stressed (MS)	now, and then at short intervals of time	Moderately Extensive (MOE)	used now, and then at short intervals of time
1.50–2.49	Slightly Stressed (SS)	in a while at long intervals of time	Least Extensive (LE)	used once in a while, at shortest intervals of time
0.50–1.49	Not Stressed (NS)	never	Never (N)	not used

Product moment correlation, or Pearson r was computed to determine the significance of the relationship between technostressors and coping mechanism, and in answer to subproblem five. Using the universal sampling method, research subjects of this study were the 57 academic librarians from the 10 Davao Colleges and Universities Network (DACUN) member-schools of Assumption, Brokenshire, Davao Doctors, Holy Cross, Philippine Women's, Rizal Memorial, University of Southeastern Philippines, University of the Immaculate Conception, University of Mindanao, and the University of the Philippines-Mindanao.

Below is an illustration of this study.

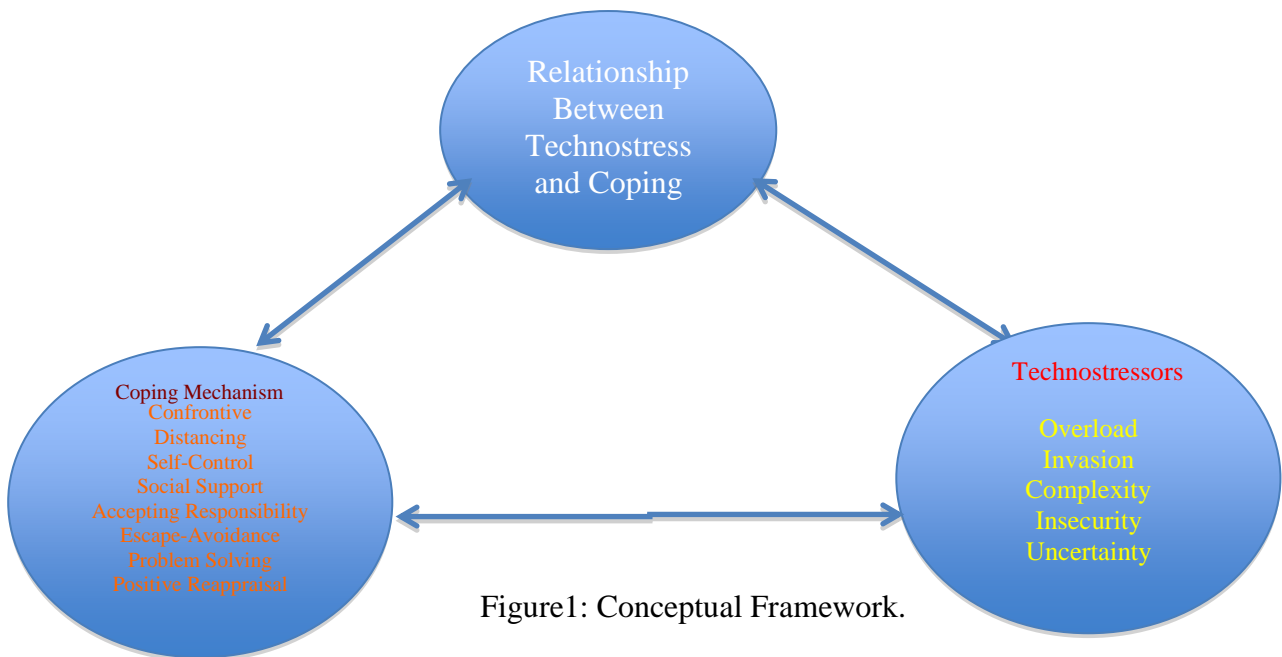


Figure1: Conceptual Framework.

#### 4. RESULTS AND DISCUSSION

Table 2 presents the level of technostressors experienced by academic librarians. Sources of stress are overload, invasion, complexity, insecurity, and uncertainty.

Table 2. Technostressors Experienced by Academic Librarians

Technostressors	Item No.	Item Result			Overall		
		SD	Mean	DE	SD	Mean	DE
Overload	1-5	1.29, 1.31, 1.22, 1.33, 1.29	2.84, 2.88, 2.75, 2.88, 2.77	all MS	1.19	2.82	MS
Invasion	6-9	1.06, 1.20, 1.10, 1.14	2.21, 2.35, 2.04, 2.04	all SS	.91	2.15	SS
Complexity	10-14	1.32, 1.03, 1.10, 1.04, 1.05	3.07, 2.39, 2.67, 2.39, 2.33	MS for 10 and 12, while the rest are SS	.94	2.56	MS
Insecurity	15-19	1.19, 1.17, .96, .96, .90	2.09, 2.28, 1.75, 1.77, 1.72	all SS	.87	1.92	SS
Uncertainty	20-23	1.42, 1.32, 1.31, 1.32	3.18, 2.88, 2.91, 3.07	all MS	1.26	3.00	MS
<b>Overall</b>					<b>.84</b>	<b>2.49</b>	<b>SS</b>

In terms of techno-overload, librarians are moderately stressed with an overall mean level of 2.82. Stress happens, and then at short intervals of time when librarians are forced to work faster. This confirms Clarkson's study (2011), that all who have experienced techno-overload have a better understanding of communications technology, and appeared to have a more balanced relationship with it.

Techno-invasion with an overall mean of 2.15 is a rare manifestation. The presence of technology does not require librarians to report for work even during vacation. Spending less time with family due to computer technology is a slight stressor having a mean of 2.21.

Academic librarians experience moderate stress, and at short time intervals in terms of techno-complexity, which has an indicator of 2.56. Other moderate stressors under techno-complexity are knowing enough about computer technology with 3.07 mean, and finding enough time to study and upgrade computer technology skills at a mean of 2.67. Slight stressors include needing a long time to understand, use new computer technologies, and finding new recruits to the organization who know more about computer technology, with means of 2.39 and 2.33, respectively.

Technology does not threaten academic librarians since it has a mean of 1.92, interpreted as a slight stressor. Items under this category are constantly updating skills to avoid being replaced with a mean of 2.28, and feeling the constant threat to job security due to computer technologies with a mean of 2.09. Items with the lowest mean are sharing one's knowledge with coworkers for fear of being replaced with a mean of 1.77 or slightly stressed, being threatened by coworkers with newer computer technology skills with a mean of 1.75 or slightly stressed; and, feeling there is less sharing of knowledge among coworkers for fear of being replaced with a mean of 1.72 or slightly stressed. This means that respondents are not threatened by coworker with technology skills and did not feel the fear of being replaced by coworker with better knowledge about technology. This result negates the definition of techno-insecurity that academic librarians are not threatened about losing their jobs to other people who have a better understanding of new information system, thus, feel insecure or cynical about technology, leading to tension and stress (Ragu-Nathan, Tarafdar, and Ragu-Nathan, 2008).

Overall mean for techno-uncertainty is 3.0, or moderately stressed. This indicates that the level of techno-uncertainty happens now, and then at short intervals of time. Although, librarians are still enthusiastic about learning new applications of technologies, constant requirements for refreshing, anxiety, and that updating eventually creates frustration. Techno-uncertainty items that moderately stress librarians are constant new developments in the computer technologies being used in the organization with a mean of 3.18, frequent upgrades in networks in the organization 3.07, constant changes in hardware in the organization 2.91, and constant changes in software in the organization 2.88.

In summary, academic librarians are moderately stressed in techno-uncertainty, techno-overload, techno-complexity, low stress in techno-invasion, and slightly stressed in techno-insecurity. Academic librarians cope with these techno-stressors through confrontive coping, distancing, self-controlloing, seeking social support, accepting responsibility, escape avoidance, planful problem solving, and positive reappraisal.

Results on the levels of coping mechanism are presented in Table 3.

Table 3. Coping Mechanism of Academic Librarians

Coping Mechanism	Item No.	Item Result			Overall		
		SD	Mean	DE	SD	Mean	DE
Confrontive Coping	1-6	1.17, 1.10, 1.13, .93, 1.06, 1.10	3.05, 2.67, 2.32, 2.67, 2.42, 2.67	ME for 1,2, 4, and 6, and LE for 3 and 5	.78	2.63	MOE
Distancing	7-12	.94, .99, 1.19, 1.10, .96, 1.09	2.16, 2.30, 3.32, 2.58, 2.53, 2.89	LE for 7 and 8, while the rest are MOE	.81	2.62	MOE

Self-Controlling	13-18	1.18, 1.10, 1.13, 1.15, 1.07, 1.18	3.33, 3.12, 3.09, 2.74, 2.88, 3.25	all are MOE	.95	3.06	MOE
Seeking Social Support	19-24	1.03, 1.03, 1.17, 1.19, 1.10, 1.04	3.47, 3.54, 3.11, 3.30, 3.32, 3.19	all are MOE, 20 is ME	.87	3.32	MOE
Accepting Responsibility	25-28	1.09, 1.06, 1.00, 1.03	3.14, 3.40, 2.98, 3.46	all are MOE	.88	3.24	MOE
Escape-Avoidance	29-34	1.36, .96, .86, 1.01, .80, 1.01	2.58, 2.16, 1.56, 2.00, 1.70, 1.89	29 is MOE, while the rest are LE	.68	1.98	LE
Planful Problem Solving	35-40	1.06, .89, 1.02, 1.01, 1.05, 1.11	3.72, 3.89, 3.63, 3.58, 3.77, 3.74	all are ME	.87	3.71	ME
Positive Reappraisal	41-46	1.06, .89, 1.02, 1.01, 1.05, 1.11	3.72, 3.89, 3.63, 3.58, 3.77, 3.74	all are ME	.88	3.97	ME
<b>Overall</b>					<b>.59</b>	<b>3.07</b>	<b>ME</b>

Among the coping mechanism used by academic librarians, planful problem-solving and positive reappraisal have the two highest means at 3.71 and 3.97, respectively. This posits the fact that these are practiced by academic librarians, but not at all times.

Confrontive coping, distancing, self-controlling, seeking social support, and accepting responsibility, all have means that fall within the moderately extensive level. Academic librarians practice these coping mechanisms at certain times, and then at short intervals of time. Meaning, they frequently occur in the coping process.

Confrontive coping mechanisms include doing something which does not work, but the librarian at least tried doing it; trying to get the person responsible to change one's mind; expressing anger to the person who cause the problem; letting feelings get out somehow; taking a big chance or doing something very risky; and, standing one's ground and fighting for what one wants.

Distancing coping mechanisms are going along with fate; going on as if nothing happened; looking for the silver lining, or trying to look on the bright side of things; trying to forget the whole thing; refusing to think about it too much; and, making light of the situation by refusing to get too serious about it.

Trying not to burn bridges, but leaving thing open somewhat is one of the coping mechanisms under self-controlling. The others are trying to keep one's feelings to oneself, trying not to act too hastily or follow the first hunch, keeping others from knowing how bad things are, trying to keep one's feelings from interfering with other things too much, and going over in one's mind what one would say or do.

Seeking social support means reaching out to the social circle of an individual for their help. These can be done by talking to someone to find out more about the situation, accepting sympathy and understanding, getting professional help, talking to someone who could do something concrete about the problem, asking a relative or friend being respected for advice, and talking to someone about how one was feeling about a certain stressor that has occurred.

Accepting responsibility is to attribute the blame on one's self. To do this one could either criticize or lecture oneself, apologize or doing something to make up, realizing that one is bringing the problem to oneself, or making a promise that things would be different the next time around when the stressor crops up again.



Another coping strategy is to avoid the stressor. This could happen only by hoping for a miracle; sleeping more than the usual number of hours; trying to make oneself better by eating, drinking, smoking, using drugs or medication; avoiding being with people in general; taking the stressor out on other people; and, refusing to believe that it had happened.

A more scientific approach to coping is to plan how to solve it. An academic librarian under stress could either concentrate on what steps to do next; making a plan of action and following the plan; changing something so things would turn out all right; drawing out from past experiences; knowing what had to be done, so doubling efforts to make things work out right; and, coming up with a couple of different solutions to the problem.

The stressor can also be treated by academic librarians from a positive perspective, and from there reappraise it. Positive reappraisal can be in the form of being inspired to do something creative; changing, or growing up as a person in a good way; coming out of the experience better than when one went in; finding a new faith; rediscovering what is important in life, or setting priorities; and changing something about oneself.

#### 4.a Relationship Between Technostressors and Coping Mechanism

The null hypothesis formulated earlier for this study was that there is no significant relationship between technostressors and the different coping mechanisms of academic librarians. Several statistical computations were used to determine if such a relationship exists.

Among the statistical tools used were means and Pearson r at 0.05 significant level. The p value was also computed. These data were used for all six technostressors, and for all eight coping mechanisms. These then are computed and compared across both variables, the technostressor and coping mechanisms.

Presented in Table 4 are the resulting relationship between technostressors and coping mechanism.

Table 4. Relationship Between Technostressors and the Level of Coping Mechanism

Coping Mechanisms	Technostressors					
	Overload r-value (p value)	Invasion r-value (p value)	Complexity r-value (p value)	Insecurity r-value (p value)	Uncertainty r-value (p value)	Overall r-value (p value)
Confrontive Coping	.432 (.001)	.344 (.009)	.199 .138	.282* (.034)	.343 (.009)	.403 (.002)
Distancing	.152 (.260)	.273* (.040)	.135 (.318)	.213 (.111)	.186 (.165)	.232 (.082)
Self-Controlling	.130 (.334)	.189 (.160)	.137 (.311)	.151 (.261)	.193 (.151)	.197 (.141)
Seeking Social Support	.276* (.037)	.128 (.343)	.329* (.012)	.174 (.195)	.363 (.006)	.325* (.014)
Accepting Responsibility	.266* (.045)	.290* (.029)	.289* (.029)	.155 (.251)	.326* (.013)	.333* (.011)
Escape-Avoidance	.107 (.427)	.232 (.083)	.271* (.042)	.312* (.018)	.075 (.578)	.228 (.087)



Planful Problem-Solving	.079 (.558)	-.045 (.737)	-.079 (.557)	-.187 (.163)	.236 (.077)	.027 (.844)
Positive Reappraisal	.018 (.897)	-.056 (.676)	-.016 (.906)	-.189 (.167)	.164 (.223)	.000 (.999)
Overall	.256 (.055)	.232 (.083)	.218 (.104)	.149 (.268)	.337* (.010)	.303* (.022)

\* *significant at  $\alpha$  0.05*

The overall r value mean of .303 on the relationship between technostressors and the coping mechanisms is considered significant since the probability value of .022 is lesser than  $\alpha$  .05 level of significance.

When confrontive coping is correlated with techno-overload with an r-value of .432, techno-invasion with r-value of .344, techno-complexity with r-value of .199, and techno-uncertainty with r-value of .343, all results indicate no significant relationships since their probability values are greater than .05. When confrontive coping is correlated with techno-insecurity, its r-value of .282 is significant, since its probability value is lesser than .05. This means that confrontive coping, with an overall r-value of .403 is not significant with the technostressors since its probability value is lesser than  $\alpha$  .05.

When distancing is correlated with techno-overload with r-value of .152, techno-complexity with r-value of .135, techno-insecurity with r-value of .213, and techno-uncertainty with r-value of .186, all of them are not significant since their probability values are all greater than  $\alpha$  0.05. When distancing coping is correlated with techno-invasion with r-value of .273, it is considered significant. But with technostressors, distancing coping with overall r-value of .232 is not significant.

When self-controlling is correlated with techno-overload with r-value of .130, techno-invasion with r-value .189, techno-complexity with r-value of .137, techno-insecurity with r-value of .151, and techno-uncertainty with r-value of .193, all indicators are not significant, considering their probability values are greater than  $\alpha$ .05. This means that self-controlling with an overall r-value of .197 is not significant between technostressors, since its probability value is lesser than  $\alpha$  .05.

Seeking social support is not significant when correlated with techno-invasion with r-value of .128, techno-insecurity with r-value of .174, and techno-uncertainty, since their probability values are greater than  $\alpha$  0.05. Two indicators on seeking social support are significant when correlated with techno-overload with r-value of .276 and techno-complexity with r-value of .329. This means seeking social support coping with overall r-value of .197 is significant between technostressors.

Accepting responsibility is not significant when correlated with techno-insecurity with r-value of .155, considering its probability value is greater than  $\alpha$  0.05. Four indicators are significant when accepting responsibility is correlated with techno-overload with r-value if .266, techno-invasion with r-value of .290, techno-complexity with r-value of .289, and techno-uncertainty with r-value of .326. This means that accepting responsibility with overall r-value of .325 is significant, considering the probability value is lesser than  $\alpha$  0.05.

Escape avoidance is not significant when correlated with techno-overload with r-value of .107, techno-invasion with r-value of .232, and techno-uncertainty with r-value of .075. since their probability values are greater than  $\alpha$  0.05. Two indicators are significant when correlated with techno-complexity with r-value of .271 and techno-insecurity with r-value of .312.

Planful problem-solving indicators are no significant when correlated with techno-overload with r-value of .079, techno-invasion with r-value -.045, techno-complexity with r-value of -.079, techno-insecurity with r-value of -.187, and techno-uncertainty with r-value of .236 considering that their probability values are greater than .05.

Positive reappraisal indicators are not significant when correlated with techno-overload with r-value of .018, techno-invasion with r-value -.056, techno-complexity with r-value of -.016, techno-insecurity with r-value of -.189, and techno-uncertainty with r-value of .164, since their probability values are greater than  $\alpha$  0.05.

Taken in its totality, a significant relationship exists when coping mechanism is correlated with technostressors since its r-value of .303 is lesser than the probability value of  $\alpha$ 0.05 level of significance. This means that this study conforms to the theory of Lazarus and Folkman (1984) cognitive-phenomenological theory of stress and coping, and that stress is manifested in adverse outcomes for the individual, where inhibiting mechanisms reduce stress. Results further imply that the null hypothesis that there is no significant relationship between technostressors and the coping mechanism of academic librarians in Davao City, which was tested at  $\alpha$  0.05 level significance is, hereby, rejected.

## 5. FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Based on the results, this study yields the following findings:

1. The mean level on the extent of technostressors of academic librarians in Davao City are as follows; 2.82 techno-overload, 2.15 techno-invasion, 2.56 techno-complexity, 1.92 techno-insecurity, 3.00 for techno-uncertainty, and, the overall level on the extent of technostressors experienced by academic librarians has a 2.49 mean rating.

2. The mean level of coping mechanism of academic librarians in Davao City in terms of confrontive coping is 2.63, 2.62 for distancing coping, 3.06 for self-controlling, 3.32 for seeking social support, 3.24 for accepting responsibility, 1.98 for escape-avoidance, 3.71 for planful problem-solving, 3.97 for positive reappraisal, and the 3.07 for overall level of coping mechanism.

3. There is a significant relationship between the extent of techno-stressors experienced and the level of coping mechanism of academic librarians since the probability value of .022 was greater than the  $\alpha$ 0.05 level of significance. Therefore, the null hypothesis that there was no significant relationship between the level of technostressors and the coping mechanisms of academic librarians in Davao City is, hereby, rejected.

Based on the findings, the following conclusions are drawn:

1. The extent of technostressors experienced by academic librarians in Davao City is least extensive, while their level of coping mechanism is moderately extensive.

2. Technostressor is significantly related to coping mechanism.

3. The formulated null hypothesis tested at  $\alpha$  0.05 level of significance between technostressors and coping mechanisms is, therefore, rejected.

On the basis of the findings and conclusions, the following recommendations are given:

1. Heads of libraries should conduct regular seminars and workshops for academic librarians on coping mechanisms with technostressors especially on accepting responsibility, escape-avoidance, self-controlling, confrontive, and distancing coping.

2. Academic librarians should organize technology-based training in order to be comfortable with new technologies, and continue to support technology for better service to make sure they acquire technological skills continuously.

3. Similar studies may be conducted in other forms and types of libraries involving technostressors and coping mechanisms for a comparison of results.

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