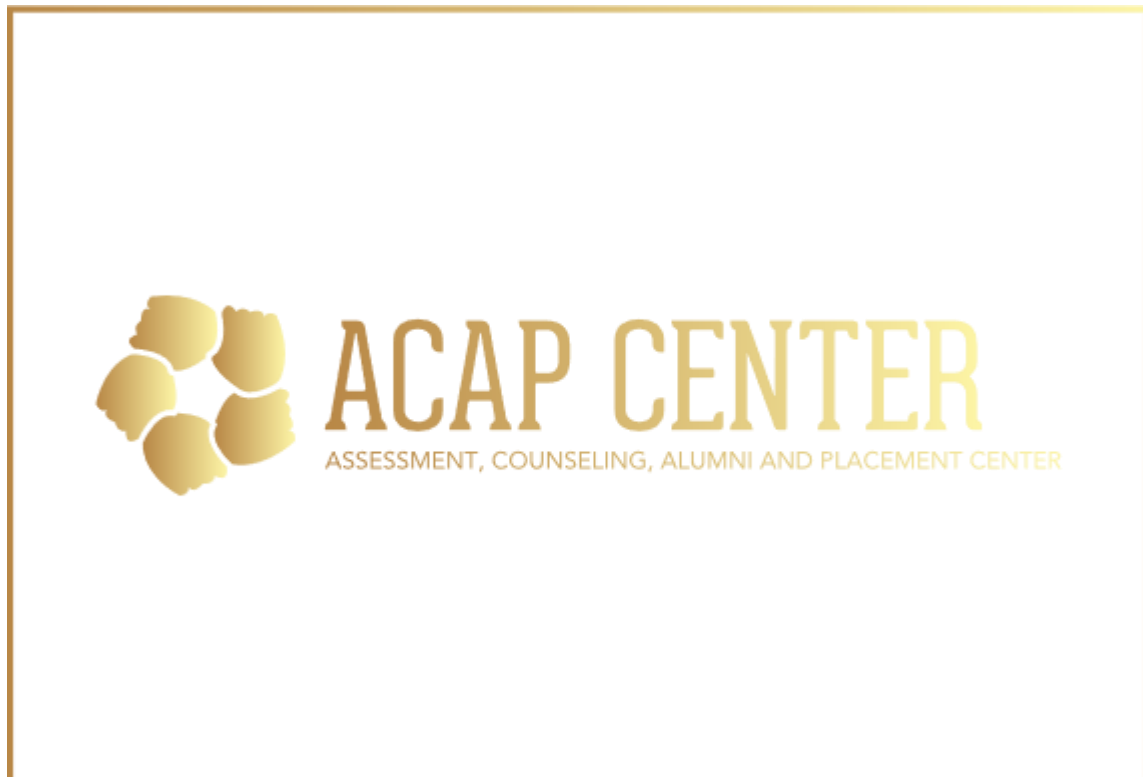


**Myers-Briggs Type Indicator (MBTI) Personality Profiling and
General Weighted Average (GWA) of Nursing Students**



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Abstract

The study focused on the investigation of the existing dynamics between the Myers Briggs Type Indicator personality profiling (MBTI), and General Weighted Average (GWA) of nursing students. The participants were 48 college students in Angeles City, Philippines. All the students were administered with the MBTI instrument. Descriptive statistics – measures of central tendency - was used to analyze the data. General Weighted Averages (GWA) were higher in: Introversion compared to Extroversion, Sensing compared to Intuition, Judging compared to Perceiving, Thinking compared to Feeling. Moreover, results revealed that the top five Personality Types that had highest GWA's were INFP – 2.0925, ISTJ – 2.11, INFJ – 2.23, ESFP – 2.246667 and ESTJ – 2.2542857 respectively. Surprisingly, majority of the students were ISFJ's, which is not included in the top five Personality Types.

Keywords: MBTI, General Weighted Average, nursing students, academic performance

Introduction

Personality Types are best predictors of human behavior and motivational influences on the individual's work performance. Research studies have drawn conclusions upon which personality type is appropriate for different functions. Personality influences the experience of emotionally significant situations and individuals vary in the manner that they relate to, or infer their situations. The approach in which they inherently do so, is said to reflect their individual personality. These alterations can be identified using the Myers Briggs Type Indicator (MBTI).

According to Su-Jeong Han (2014) it uses Carl Jung's theory of psychological type to assess and define personality. Jung developed psychological types based on four functions, namely, Feeling (F), Thinking (T), Intuition (N), and Sensing (S), plus four attitudes, namely, Extraversion (E), Introversion (I), Judging (J), and Perceiving (P). The Myers-Briggs Type Indicator (MBTI), the most widely used professional personality test, is a measure of personality traits. The MBTI identifies an individual's preference in four planes. These are Introversion versus Extroversion, Intuitive Perception versus Sensing Perception, Thinking versus Feeling and finally Perceiving versus Judging.

However, according to Dodge (2014), Jungian cognitive functions is the theory that there are eight primary mental processes the brain uses to learn new information and evaluate that information, or make decisions. There are four learning functions (called "perceiving processes), and four decision-making functions (called "judging processes"). Depending upon your Myers-Briggs type, you will have one of the learning processes and one of the decision-making processes as your favorite. The learning processes are based on the Sensor/Intuitive dichotomy, with each having an extraverted and an introverted expression, or version of itself. So, the four processes are Introverted Sensing, Extraverted Sensing, Introverted Intuition and Extraverted Intuition. The decision-making processes are based on the Thinker/Feeler dichotomy, and they also have an introverted and an extraverted expression. They are Introverted Feeling, Extraverted Feeling, Introverted Thinking and Extraverted Thinking.

Moreover, the Myers-Briggs Type Indicator (MBTI) was submitted to a descriptive reliability generalization (RG) analysis to characterize the variability of measurement error in MBTI scores across administrations. In general, the MBTI and its scales yielded scores with strong internal consistency and test-retest reliability estimates, although variation was observed. (Capraro, 2002)

Figure1: The Four MBTI Preferences and the Basic Definition of the Preference

Personality type	Basic definition and the preference	Personality type
Extraversion	Where they prefer to focus their attention	Introversion
Sensing	The way they prefer to take in information	Intuition
Thinking	The way they prefer to make decisions	Feeling
Judging	How they orient themselves to the external world	Perceiving

The table below shows what you prefer to focus on, how you might use your abilities and then some sample majors and career areas that are related to these combinations.

<p>ST Focus on: Facts</p> <p>Ability used in: technical skills with facts & objects</p> <p>Handle with: applying facts and experience</p> <p>Academic majors focusing on:</p> <p>Applied sciences, business administration, accounting and banking, law enforcement, skilled trades, engineering, construction</p>	<p>SF Focus on: Facts</p> <p>Ability used in: practical help and services for people</p> <p>Handle with: meeting the daily needs of people</p> <p>Academic majors focusing on: Health care, community service, teaching, supervision, religious work, office work, sales</p>	<p>NF Focus on: Possibilities</p> <p>Ability used in: understanding and communicating</p> <p>Handle with: understanding the aspirations of people</p> <p>Academic majors focusing on: Counseling and human services, psychology, behavioral science, literature, art & music, health care, teaching</p>	<p>NT Focus on: Possibilities</p> <p>Ability used in: theoretical and technical development</p> <p>Handle with: developing theoretical concepts</p> <p>Academic majors focusing on: physical science, research, management, computers, law</p>
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(The University of Toledo Career Services February 2005).

MBTI and Major Choice

Sources: Introduction to Type & Introduction to Type in College

ISTJ Accounting Biology Criminal Justice Finance Exercise Science Geology Medical Technology Civil engineering	ISFJ Criminal Justice Psychology Finance History Medical Technology Religious Studies Social Work	INFJ Art Communication Psychology Latin American Studies Marketing Nursing Physical Education Sociology Urban Studies	INTJ Biochemistry Psychology Finance Mathematics Sociology Urban Studies Environmental Sciences Business Management Technology
ISTP Biology Finance Law and Social Thought Geology Economics Theatre Mathematics	ISFP Art Psychology Exercise Science Law and Social Thought Foreign Languages Nursing	INFP Management History Medical Technology Foreign Languages Music Psychology Religious Studies Social Work	INTP Chemistry Information Systems Criminal Justice Economics Finance History Legal Secretarial Technology Physics
ESTP Art Biology Information Systems Medical Technology Environmental Studies Theatre	ESFP Psychology Exercise Science Geology Nursing Speech Language Pathology Social Work	ENFP Anthropology Art Chemistry Early Childhood Education Marketing Foreign Languages Sociology Communication	ENTP Information Technology Communication Criminal Justice Finance Mechanical Engineering Technology Marketing History
ESTJ Mechanical Engineering Public Relations Music Accounting Finance Political Science	ESFJ Psychology Marketing Nursing Physical Education Religious Studies Social Work Speech Language Pathology	ENFJ Communication Psychology Management Marketing Public Relations Urban Studies Foreign Languages	ENTJ Economics Secondary Education (AYA) Management International Business Political Science Sociology Anthropology

Review of Related Literature

The MBTI, which is formally known as the Myers-Briggs Type Indicator, is a personality inventory. Career development professionals may use it, as one component of a complete self-assessment, to help a client choose the right career. The MBTI is

based on Carl Jung's theory of personality type and was developed by the mother-daughter team of Katharine Briggs and Isabel Briggs Myers. Jung's Personality Types Carl Jung believed an individual's personality was made up of his or her preferences, or the way he or she chooses to do certain things. He theorized that there were four pairs of opposite preferences that indicate how an individual: energizes (Extroversion v. Introversion), perceives information (Sensing v. INtuition), makes decisions (Thinking v. Feeling) and lives his life (Judging v. Perceiving). Four preferences—one from each pair—make up someone's personality type. This is indicated by the four letters that refer to each preference (note the letters in bold type above). There are 16 different personality types in all: ISTJ/ ISFJ/ INFJ/ INTJ/ ISTP /ISFP/ INFP/ INTP/ ESTP/ ESFP/ENFP/ENTP/ESTJ/ESFJ/ENFJ/ENTJ. Each personality type is unique. It is the combination of the four preferences that make you who you are, not the sum of them. Many career planning experts believe that when you know your personality type, as discovered through using this or another personality inventory, you can make better decisions about your career. For instance, this information can help you choose a career or figure out whether a particular job will be a good fit for you. (Mckay, 2016 Career Planning Myers-Briggs Type Indicator (MBTI))

Background: Career development of health professionals is one of many uses of Myers-Briggs Type Indicator (MBTI), with many studies reported from the 1950s. Since 1977, no large-scale effort to collect data on the medical school population has been reported. Purpose: To determine (a) changes in MBTI profiles of medical students over time, (b) differences between the profiles of men and women and the effects of the increased number of women in medical school, (c) possible associations between type and career choices, and (d) possible type differences of graduates selecting primary care and specialties. Method: Twelve U.S. schools with data on 3,987 students contributed to a database of their graduates' MBTI type and specialty choice at Match. Results: Compared with data from the 1950s, the type distribution of physicians has remained fairly stable, save for a trend toward more judging types. Women in medicine today are more representative of the general population on the feeling dimension than earlier, when medicine was more male-dominated. Women are more likely than men to choose primary care specialties, as are those with preference for introversion and feeling. Feeling types choose Family Medicine significantly more often than thinking types; male, extraverted, and thinking types choose surgical specialties. Of those selecting non-primary care, male, extraverted, and thinking types choose surgical specialties significantly more than women, introverted, and feeling types. Conclusion: Type remains useful for understanding how some aspects of personality relate to medical specialty choice. (Stilwell, 2009 Myers-Briggs Type and Medical Specialty Choice: A New Look at an Old Question)

This paper provides a review of research into the relationships between psychological types, as measured by the Myers-Briggs Type Indicator (MBTI), and managerial attributes, behaviors and effectiveness. The literature review includes an examination of the psychometric properties of the MBTI and the contributions and limitations of research on psychological types. Next, key findings are discussed and used to advance propositions that relate psychological type to diverse topics such as risk tolerance, problem solving, information systems design, conflict management and leadership. We conclude with a research agenda that advocates: (1) the exploration of potential psychometric refinements of the MBTI, (2) more rigorous research designs, and (3) a broadening of the scope of managerial research into type. (Gardner, 1996 Using the Myers-Briggs Type Indicator to study managers: A literature review and research agenda).

Proposes that a crucial component of the career development process is what is termed “managerial self-awareness” (MSA). To-date relatively little has been written about self-awareness, particularly in the literature on managerial career development. Specifically explores the concept of self-awareness in the context of managerial career development. The importance of self-awareness in the managerial career development processes is examined and the relationship between self-awareness and managerial success is also considered. The findings of a qualitative study conducted to investigate the effectiveness of two instruments used to enhance self-awareness are reported. One of the characteristics of effective managerial career development is the creation of self-awareness in the learner. 360-degree feedback and personality inventories are considered useful tools in this respect. (McCarthy, 1999 Developing self-awareness in the managerial career development process: the value of 360-degree feedback and the MBTI).

Many of the challenges facing the accounting profession involve personality characteristics of accountants. Personality theories have generated a rich research stream outside accounting and are widely applied in other disciplines and professions. Yet little research using these theories has been done in accounting. To redress this imbalance, this paper examines Jungian personality-type psychology—one of the main personality theories—and the major psychometric instrument that has arisen from it—the Myers-Briggs Type Indicator (MBTI). The MBTI has been extensively tested for reliability and validity, and used in a large number of basic and education research studies. Results from reliability and validity testing indicate that the MBTI reliably measures personality characteristics predicted by Jungian theory. A small amount of published research has been conducted in accounting using the MBTI. These 16 articles are reviewed, with suggestions for additional research. (Wheeler, 2001 The Myers-Briggs Type Indicator and Applications to Accounting Education and Research).

The Myers-Briggs Type Indicator (MBTI; Myers & McCaulley, 1985) is used at each stage of career assessment and career counseling. Based on Jung's theory of psychological types, the psychodynamic model of the MBTI is useful for self-understanding and life-long development. MBTI type descriptions characterize 16 types at their best; provide positive, self-affirming goals; and note blind spots and problems to avoid. MBTI type tables apply Jung's theory to groups; type tables for careers not only validate Jung's theory, but provide ways for looking at occupations attractive to each of the 16 psychological types. Career counselors use type tables to help clients see the fit between their preferences and career families and to highlight careers especially worth considering. The MBTI problem-solving model is a useful tool in the career planning process. Finally, counselors who understand the MBTI find it useful for individualizing counseling approaches and strategies to the type preferences of their clients. (McCaulley, 1995 Career Assessment and the Myers-Briggs Type Indicator).

Methodology

Study Design

This study was descriptive and exploratory in design. This study identified and assessed the current dynamics of the MBTI and GWA of nursing students.

Sampling and Data Collection

Convenience sampling was used and questionnaires were administered to forty eight (48) nursing students at Systems Plus College Foundation in this study. It took 20-25 minutes to complete the questionnaire.

Instrument

Myers-Briggs Type Inventory (MBTI): The standardized survey instrument used for personality type assessment was the MBTI Form G. The MBTI-G is a 94-item self
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Data Analysis

Descriptive Statistics – Measure of Central Tendency – was utilized to identify and assess the current dynamics of MBTI and GWA of nursing students.

Results and Discussion

Table 1: Dichotomy of each type indicators

	Type	GWA	n	percentage
1	INTROVERSION	2.2404762	21	43.75
2	SENSING	2.2616667	30	64.58333333 3
3	JUDGING	2.272	30	62.5
4	PERCEIVING	2.2983333	18	37.5
5	THINKING	2.3064286	14	29.1666666 7
6	EXTROVERSION	2.3140741	27	58.3333333 3
7	INTUITIVE	2.3155556	18	37.5
8	FEELING	2.6634483	34	70.8333333 3

Table 1 shows the dichotomy of each type indicators, GWA mean of each preferred type and the percentage or sample (n) of the whole population. The values are: introversion with GWA mean of 2.2404762, n=21, 43.75%; sensing with GWA mean of 2.2616667, n=30, 64.58333333%; judging with GWA of 2.272, n=30, 62.5%; perceiving with GWA mean of 2.2983333, n=18, 37.5%; thinking with GWA mean of 2.3064286, n=14, 29.16666667%; extroversion with GWA mean of 2.3140741, n=27, 58.33333333%; intuitive with GWA mean of 2.3155556, n=18, 37.5%; and feeling GWA mean of 2.6634483, n=34, 70.83333333%.

Table 2: Function and Temperament

	FUNCTION/TEMPERAMENT	COMBINATION	N	MEAN-GWA	RANK
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	FUNCTION	ST	9	2.22222222	1
	FUNCTION	SF	21	2.27857143	4
	FUNCTION	NF	13	2.26076923	3
	FUNCTION	NT	5	2.458	2
	TEMPERAMENT	SJ	23	2.25043478	1
	TEMPERAMENT	SP	7	2.29857143	3
	TEMPERAMENT	NJ	7	2.34285714	4
	TEMPERAMENT	NP	11	2.29818182	2

Table 2 shows the function and temperament combining two of the dichotomies, their GWA mean, sample size, and ranking. The functions are ST (sensing-thinking), SF (sensing-feeling), NF (intuitive-feeling), and NT (intuitive-thinking). ST with the GWA mean of 2.22222222, n=9 and ranked 1st; NT with the GWA mean of 2.458, n=5 and ranked 2nd; NF with the GWA mean of 2.26076923, n=13 and ranked 3rd; and SF with GWA mean of 2.27857143, n=21 and ranked last. On the other hand temperament are SJ (sensing-judging), SP (sensing-perceiving), NJ (intuitive-judging), NP (intuitive-perceiving). SJ with the GWA mean of 2.25043478, n=23 ranked 1st; NP with the GWA mean of 2.29818182, n=11 ranked 2nd; SP with the GWA mean of 2.29857143, n=7 ranked 3rd; and NJ with the GWA mean of 2.34285714, n=7 ranked last.

Table 3: Personality Type and Preferred Majors

	TYPE	GWA-MEAN	PERCENTAGE	n	College Majors
1	INFP	2.0925	8.33333333	4	English
2	ISTJ	2.11	4.16666667	2	Public Policy
3	INFJ	2.23	6.25	3	Psychology
4	ESFP	2.2466667	12.5	6	Communication
5	ESTJ	2.2542857	14.58333333	7	Business
6	ESFJ	2.265	12.5	6	Nursing
7	ISFJ	2.27125	16.66666667	8	History
8	INTJ	2.33	6.25	3	Chemistry
9	ENFP	2.3883333	12.5	6	Languages
10	ENTP	2.58	2.08333333	1	Philosophy
11	ISFP	2.61	2.08333333	1	Animal Sciences
12	ENTJ	2.72	2.08333333	1	Political Science
13	ENFJ	0	0	0	Education
14	ESTP	0	0	0	Criminal Justice
15	INTP	0	0	0	Physics
16	ISTP	0	0	0	Computer Science

Table 3 shows the sixteen personality types according to the MBTI, the GWA mean of each types, the sample size and the college major that is preferred by each type. Top Five (5) are as follows: INFP has a GWA mean of 2.0925, n=4, 8.33%, preferred major is English; ISTJ has a GWA of 2.11, n=2, 4.166%, preferred major is Public Policy; INFJ has a GWA of 2.23, n=3, 6.25%, preferred major is Psychology; ESFP has a GWA of 2.246, n=6, 12.45%, preferred major is Communication and ESTJ has a GWA of 2.254, n=7, 14.583%, preferred major is Business. Furthermore, ESFJ whose preferred major is Nursing, ranked 6 in the GWA Mean.

It is apparent that 58.33% of the population preferred Extroversion over its counterpart Introversion, which is 43.75%. Feeling is 70.83% over its counterpart Thinking, which is 29.16%. Sensing is 64.5% over its counterpart Intuition, which is

37.5%. Judging is 62.5% over its counterpart Perceiving, which is 37.5%. The researchers may infer that based on the results, nursing students are more directed towards the human aspects in their personality – Extroversion, Feeling, Sensing and Judging.

In Function, the combination of Sensing – Thinking (ST) ranked 1 with GWA of 2.22222222 and in Temperament, the combination of Sensing – Judging (SJ) ranked 1 with GWA of 2.25043478.

Furthermore, the results show that the preferred course of the top five (5) personality types with the highest General Weighted Average did not include Nursing. Nursing ranked number 6 on the results with the highest GWA. The results were:

	TYPE	GWA	Course
1.	INFP	2.0925	English
2.	ISTJ	2.11	Public Policy
3.	INFJ	2.23	Psychology
4.	ESFP	2.2466667	Communication
5.	ESTJ	2.2542857	Business
6.	ESFJ	2.265	Nursing

Recommendations

1. More research studies should be conducted focusing on personality types and career choices to other colleges in order to determine the suitability for their respective courses.
2. MBTI should be considered in the Senior High School for their career choice assessment.
3. MBTI should be conducted to incoming employees to determine their FUNCTION and TEMPERAMENT, Personality Type and Applicability in their chosen field of instruction and/or designation.

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