

The ameliorative effect of vinpocetine on liver fibrosis and bone changes in the bile-duct ligated rat

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ABSTRACT

Vinpocetine is a drug that is widely used to treat vascular cognitive disorders in the old age. The drug has been shown to protect against hepatocellular damage caused by carbon tetrachloride in rats. In this study, vinpocetine was investigated for its ability to improve cholestatic hepatic injury and bone changes associated with bile duct ligation in rats. Rats with biliary obstruction induced by double ligation and section of the common bile duct were randomly and blindly assigned to receive either vinpocetine (2.1, 4.2, 8.4 mg/kg) or saline once a day orally, starting one day after surgery and continued for one month thereafter. At the end of the treatment period, rats were killed and analyzed for blood biochemistry, liver and bone histopathology. Compared to their sham-treated counterparts, bile duct-ligated (BDL) rats exhibited markedly elevated serum activities of alanine aminotransferase (ALT), aspartate aminotransferase (AST), and alkaline phosphatase (ALP) as well as markedly raised serum bilirubin level. Histopathological examination of BDL rats revealed focal necrosis, degenerated hepatocytes, bile duct hyperplasia and inflammatory cell infiltrates. Histochemical staining using Feulgen and Periodic acid-Schiff's (PAS) staining showed depletion of liver glycogen and markedly decreased deoxyribonucleic acid (DNA) content in hepatocytes. Reduced osteocyte cellularity and few areas of regenerating bone were observed in BDL rats. The administration of vinpocetine to BDL rats resulted in dose-dependent decrease in serum ALT, AST, ALP activities by 33.6-64.4%, 17.5-43.9% and 26.5%-39.2%, respectively. Serum bilirubin decreased by 19% after 8.4 mg/kg of vinpocetine. The drug also resulted in amelioration of the pathological changes in the liver, increased glycogen and DNA content of hepatocytes and improved bone cellularity and increased bone regeneration dose-dependently. These findings suggest a beneficial effect for vinpocetine on liver damage and bone changes caused by biliary obstruction in rats.

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1. Introduction

The formation of bile is an essential function of the liver. This complex aqueous fluid consists mainly of water in which there is bile salts, bilirubin, proteins, cholesterol amino acids, steroids, xenobiotics. Bile which is primarily produced by hepatocytes and modified by cholangiocytes through secretion and absorption is necessary for the elimination of potentially toxic lipophilic

substances, and xenobiotics. Cholestasis results from the cessation or impairment of bile flow (Boyer, 2013). Cholestatic liver diseases encompasses a wide spectrum of disorders, the main pathological alteration in which is the cessation or stagnation of bile flow that occurs in conditions such as viral hepatitis, primary sclerosing cholangitis, septicaemia, biliary stricture, drug-induced cholestasis and many others (Pérez Fernández et al., 2004; Freedman, 2011). Cholestasis is associated with marked increase in liver bile acids and bilirubin levels and in regurgitation of these biliary constituents in the blood and other tissues. In the liver, this will eventually result in serious liver injury; the back pressure exerted by the stagnant bile on the liver cells causing anoxia and ischaemia as well as the toxic effects of the accumulated bile salts themselves results in hepatic injury. The failure to secrete bile or cholestasis will ultimately result in liver cirrhosis, and hepatocellular failure (Solter, 2005; Yang et al., 2010; Boyer, 2013). There is also an increase in the risk of developing hepatocellular or cholangiocellular carcinomas in long-term cholestasis (Li and Apte, 2015). Moreover, prolonged cholestasis such as that occurring in the context of primary sclerosing cholangitis is also an important factor in the development of osteoporosis in these patients (Le Gars, 2002; Gasser, 2009). In the management of cholestatic disorders, the primary goal is the alleviation of the underlying cause as well as improving the state of the liver cells e.g., by the use of ursodeoxycholic acid or antioxidants like silymarin (Woolbright and Jaeschke, 2012). New therapeutic approaches are therefore needed to decrease liver injury and/or metabolic bone disease in cholestatic disorders.

Vinpocetine (vinpocetine-ethyl apovincaminat), the synthetic derivative of vincamine, an extract of periwinkle, is a drug that is widely used in the treatment of cognitive decline due to cerebrovascular insufficiency associated with aging by increasing cerebral blood flow and regional glucose uptake (Hadjiev 2003; Jovanović et al. 2013). Previously, vinpocetine has been shown to alleviate hepatocellular damage caused by the hepatotoxin carbon tetrachloride (CCl₄) in the rat (Abdel-Salam et al., 2007). In this study, the effect of vinpocetine on liver tissue damage and fibrosis as well as on bone changes induced by bile-duct ligation in rats is examined. The latter is widely used to model human cholestatic liver disease (Kountouras et al., 1984; Salas et al., 2007; Sheen et al., 2016).

2. Materials and methods

2.1. Animals

Sprague–Dawley rats of either sex, weighing 180–200 g of body weight were used throughout the experiments. Animals were housed under standard laboratory conditions with free access to standard laboratory chow and water ad libitum. Animal procedures were performed in accordance with the Ethics Committee of the National Research Centre and followed the recommendations of the National Institutes of Health Guide for Care and Use of Laboratory Animals (Publication No. 85-23, revised 1985).

2.2. Surgery

Under light ether anaesthesia, midline laparotomy was performed, the common bile duct isolated and ligated with 4-0 silk suture in two places just above the duodenum anterior to the pancreas and posterior to the hilum of the liver. The bile duct was cut between the two ligatures and the abdominal wall was then closed in two layers by continuous silk suturing. Rats were given topical betadine as an antiseptic and 0.2 ml gentamicin intramuscularly to control post-surgical infection. The rats were then allowed to recover with free access to food and water after the surgery. Sham operated rats were subjected only to midline laparotomy and manipulation of the bile duct.

2.3. Study design

Rats with ligation-section of the common bile duct were randomly and blindly assigned to different groups, six rats each. Rats received either vinpocetine (2.1, 4.2, 8.4 mg/kg) or saline. Drug treatment started 1 day after surgery and continued for 4 weeks. In Sham-ligated animals, the duct was located, manipulated, and replaced. At the end of the treatment period, rats were killed and

analyzed for blood biochemistry and liver pathology. The doses were selected on the basis of previously published studies (Abdel-Salam et al., 2007).

2.4. Biochemical assessment

At the end of the experiments, blood samples were obtained from the retro-orbital vein plexuses, under ether anaesthesia. Alanine aminotransferase (ALT) and aspartate aminotransferase (AST) activities in serum were determined according to Reitman-Frankel colorimetric transaminase procedure (Crowley, 1967), whereas colorimetric determination of ALP activity was done according to the method of Belfield and Goldberg (1971) using commercially available kits (BioMérieux, France). Bilirubin in plasma was determined using commercially available kit (BioMérieux, France).

2.5. Histopathological and histochemical evaluation

After the end of the treatment period, rats were killed; livers and right tibia were excised and fixed in 10% formalin saline. Sections were prepared and stained with hematoxylin and eosin (H & E) for histopathological examination. Histological investigations were carried out using Feulgen stain for deoxyribonucleic acid (DNA) content and Periodic acid-Schiff's (PAS) stain for hepatic glycogen distribution.

2.5.1. Morphometric analysis

Qwin Leica image processing and analysis system (Cambridge, UK) was used for the determination of the percentage of damaged areas (fibrosis and necrosis), DNA optical density, glycogen optical density, osteocytes measurements and the area of bone damage.

3. Results

3.1. Effect of vinpocetine on serum liver enzymes and bilirubin in BDL rats

Data are presented in Fig.1. Bile duct ligation for one month resulted in marked and significant elevation of alanine aminotransferase (ALT) and aspartate aminotransferase (AST) activities in serum by 355.6% and 685.8%, respectively as compared with their sham control values (98.4 ± 4.7 vs. 21.6 ± 1.3 IU/L and 615.3 ± 42.5 vs. 78.3 ± 4.9 IU/L, respectively). On the other hand, serum alkaline phosphatase activity increased by 590.2% (952.6 ± 36.7 vs. 138.0 ± 11.5 IU/L). There was also significant elevation in serum bilirubin which reached 5.85 ± 0.25 mg/dl compared with sham value of 0.24 ± 0.04 mg/dl. The administration of vinpocetine at doses of 2.1, 4.2 and 8.4 mg/kg caused a dose-dependent decrease in serum activities of ALT by 33.6%, 59.3% and 64.4%, respectively. Similarly, AST activities fell by 17.5%, 21.3% and 43.9% and ALP activities decreased by 26.9%, 39.4% and 39.2% after treatment with the drug at the above doses compared with the corresponding BDL-saline control values. Serum bilirubin showed a 19% decrease after the highest dose of vinpocetine compared with the control group.

3.2. Effect of vinpocetine on liver histopathological changes in BDL rats

Liver sections from sham operated rats showed normal hepatic architecture (Fig. 2A). Liver sections of control rats with bile duct ligation revealed disorganization of hepatic cords, ballooning and fatty degeneration of hepatocytes, congested blood vessels with hyperplasia in bile ducts associated with inflammatory infiltrate. Focal areas of necrosis were seen (Fig. 2B & C). Examination of liver sections from rats treated with vinpocetine revealed prominent improvement in cells structure and in bile duct hyperplasia. The highest dose of vinpocetine examined (8.4 mg/kg) showed the most prominent improvement in hepatocytes architecture and the number of binucleated cells is reduced (Fig. 2D-F). Quantitative image analysis of the area of damage on slides stained with haematoxylin and eosin is shown in Fig. 3. A dose-related decrease in the % damaged area by 38.9%, 46.3% and 85.4% was seen after vinpocetine administration in 2.1 mg/kg, 4.2 mg/kg and 8.4 mg/kg, respectively as compared to the BDL-saline control group.

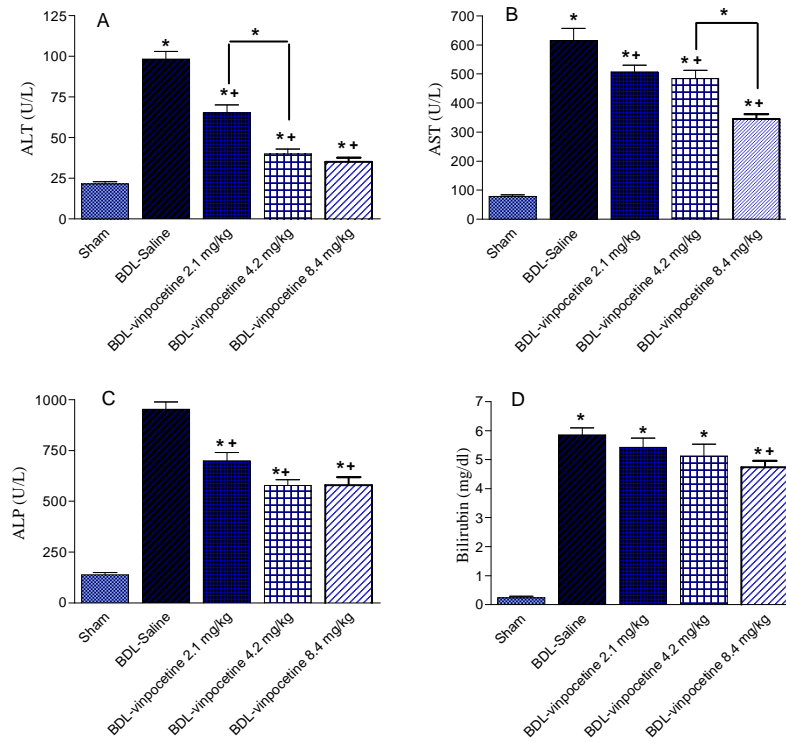


Fig. 1. Effect of vinpocetine on serum alanine aminotransferase (ALT), aspartate aminotransferase (AST), alkaline phosphatase (ALP), and bilirubin in bile-ligated rats. * $p < 0.05$ vs. Sham control and between different groups as shown on the graph. + $p < 0.05$ vs. BDL control.

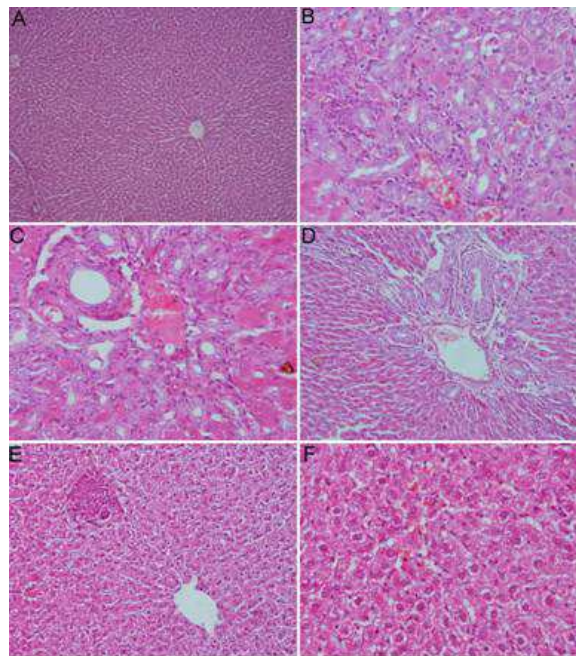


Fig. 2. Hx & E stained sections from the liver of: (A) Sham control rat showing central veins, portal tracts and hepatic cords separated with blood sinusoids (X150). (B & C) BDL rat with congestion, cytoplasmic necrosis, mononuclear cellular infiltration and fatty degeneration. Bile ducts show hyperplasia and/or damage (X400). (D) BDL + vinpocetine 2.1 mg/kg showing prominent improvement in cells structure and clear hypertrophy in bile duct hyperplasia (X300). (E & F) BDL + vinpocetine 4.2 and 8.4 mg/kg hepatocytes showing prominent improvement in hepatocytes architecture and number of binucleated cells are seen (X150 & X400).

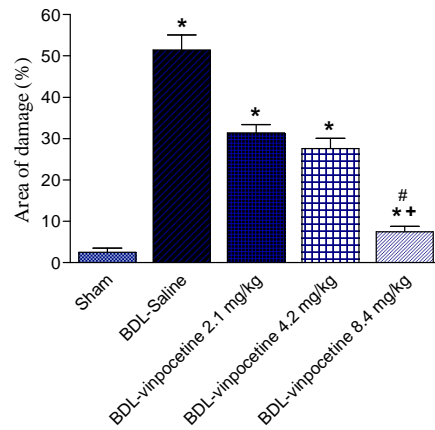


Fig. 3. The area of damage (%) in liver of BDL rats treated with different doses of vinpocetine. * $p < 0.05$ vs Sham contro. + $p < 0.05$ vs. BDL-saline

3.3. Effect of vinpocetine on liver DNA in BDL rats

The DNA reaction in BDL rats treated with saline showed marked decrease in DNA reaction and markedly increased inflammatory cells compared to sham operated rats (Fig. 4A & 4B). Rats that received vinpocetine at 2.1 mg/kg showed mild decrease in DNA reaction in hepatocytes and marked increase in inflammatory cells (Fig. 4C). Rats treated with 4.2 mg/kg showed moderate decrease in DNA reaction in hepatocytes and marked increase in inflammatory cells (Fig. 4D), while rat given high dose of the drug (8.4 mg/kg) showed improvement in DNA reaction in hepatocytes and marked increase in inflammatory cells (Fig. 4E). The optical density of DNA content (%) is shown in Fig. 5. The content of DNA fell by 30.1% in BDL rats compared with the sham control group. Vinpocetine given to BDL rats at 4.2 mg/kg and 8.4 mg/kg caused significant increase in DNA by 26.6% and 41.8% content was seen after treatment with the drug at 8.4 mg/kg compared with the BDL-saline control group.

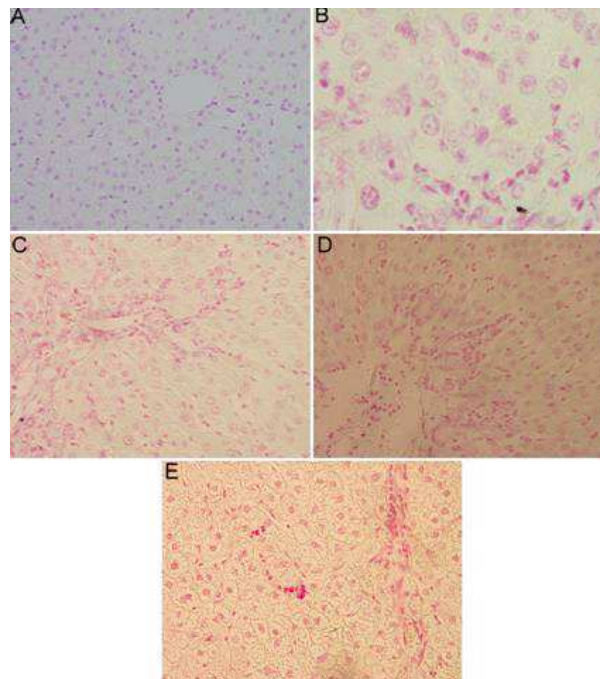


Fig. 4. Feulgen staining of sections from the liver of: (A) Sham control rat. (B) BDL rat showing marked decrease in DNA reaction. (C-E) BDL + vinpocetine showing dose-dependent increase in DNA reaction in hepatocytes (Feulgen X 400).

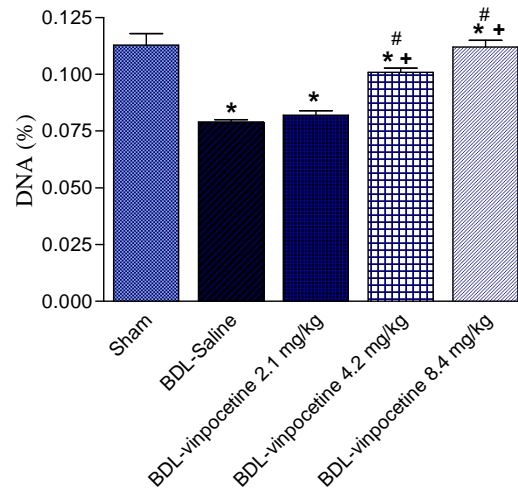


Fig. 5. DNA optical density (Feulgen stain) (%) in liver of BDL rats treated with different doses of vinpocetine. * $p < 0.05$ vs. Sham control. + $p < 0.05$ vs. BDL-saline. # $p < 0.05$ vs. vinpocetine 2.1 mg/kg

3.4. Effect of vinpocetine on liver glycogen in BDL rats

In bile duct ligated rats treated with saline hepatic glycogen distribution with Periodic acid-Schiff's (PAS) showed marked depletion compared with the sham control group (Fig. 6A & 6B). Increased PAS staining for glycogen was increased by vinpocetine in a dose-dependent manner compared with BDL control group (Fig. 6C-E). The optical density of glycogen content (%) is shown in Fig. 7. Significant increase in glycogen content was seen after treatment with the drug at 8.4 mg/kg compared with the BDL-saline control group.

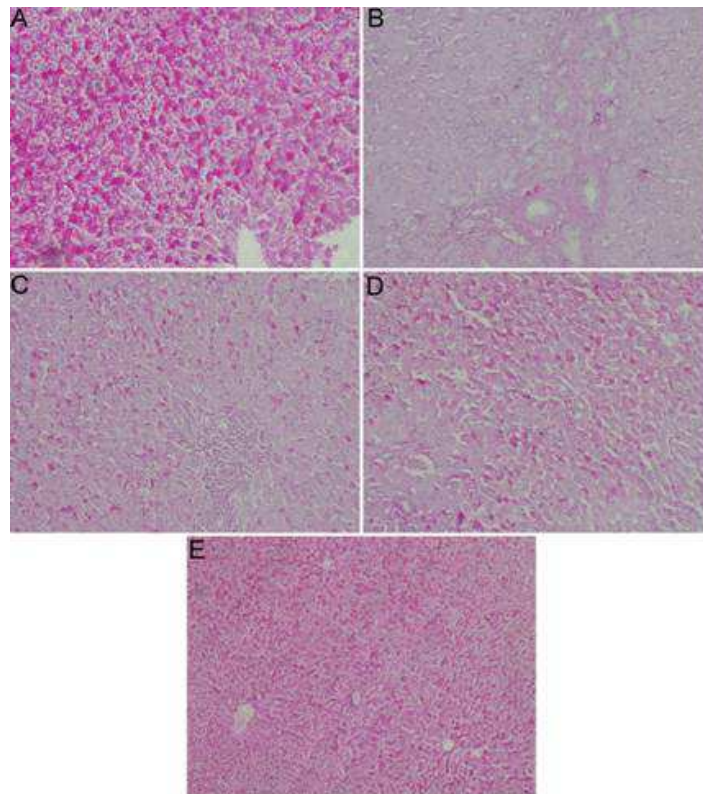


Fig. 6. Periodic acid-Schiff's staining of sections from the liver of: (A) Sham control rat. (B) BDL rat showing marked depletion in hepatic glycogen. (C-E) BDL + vinpocetine showing dose-dependent increase in glycogen content in hepatocytes (PAS X150).

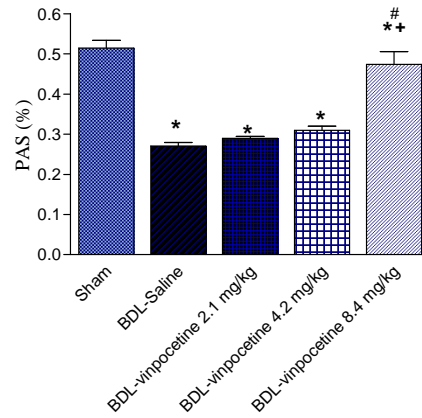


Fig. 7. Glycogen optical density (%) (Periodic acid-Schiff's stain) in liver of BDL rats treated with different doses of vinpocetine. * $p < 0.05$ vs. Sham control. + $p < 0.05$ vs. BDL-saline. # $p < 0.05$ vs. vinpocetine 2.1 or vinpocetine 4.2 mg/kg

3.5. Effect of vinpocetine on bone histopathological changes in BDL rats

Sections from the bone in sham control rats revealed average osteocyte cellularity and distribution, normal mineralization pattern and few areas of regenerating bone (Fig. 8A). In contrast, BDL rats showed decreased osteocytic count and few areas of bone regeneration (Fig. 8B). In the rats treated with lowest dose of vinpocetine the osteocyte cellularity was improved and more areas of bone basophilic cartilaginous tissue appeared within the bone tissue representing areas of regeneration started to increase (Fig. 8C). Both parameters improved the most in the group receiving the highest doses of vinpocetine (Fig. 8D & 8E). The comparison of bone sections between different groups using the image analyzer morphometric studies revealed decrease in osteocyte count and the areas of regenerating new bone formation in the BDL group and a dose dependent improvement in such parameters in the vinpocetine groups (Figs. 9 & 10).

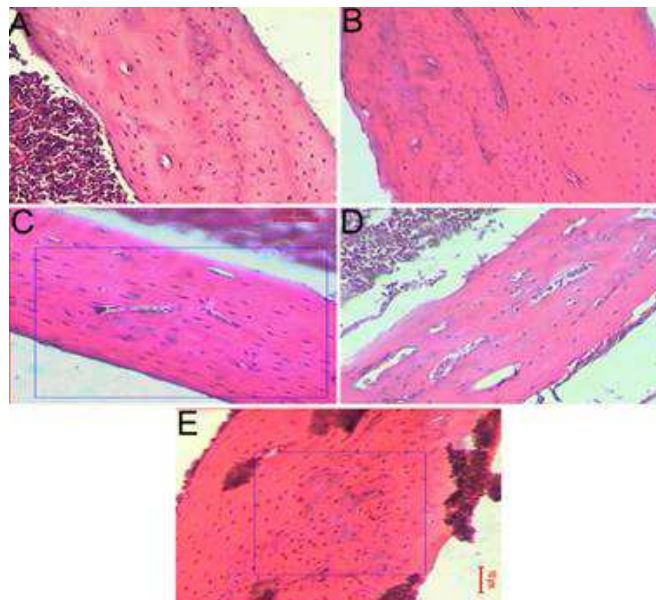


Fig. 8. A photomicrograph of the bone cortex from (A) Sham treated rat showing well-formed cortical bone with osteocyte cellularity. (B) BDL rats showing decreased osteocyte count and regenerative bone islands (C) BDL + vinpocetine 2.1 mg/kg showing more compact appearance of the shaft and increased osteocyte cellularity with rounded nuclei (D) BDL + vinpocetine 4.2 mg/kg showing improved cell count and bone regeneration (E) BDL + vinpocetine 8.4 mg/kg with more osteocytes and islands of bone regeneration (HX.& E.X100).

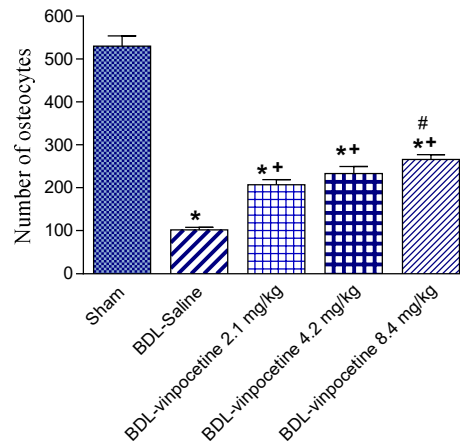


Fig. 9. Osteocyte count (mean \pm SEM) in bone of BDL rats treated with different doses of vinpocetine. * $p < 0.05$ vs. Sham control. + $p < 0.05$ vs. BDL-saline. # $p < 0.05$ vs. vinpocetine 2.1 or vinpocetine 4.2 mg/kg

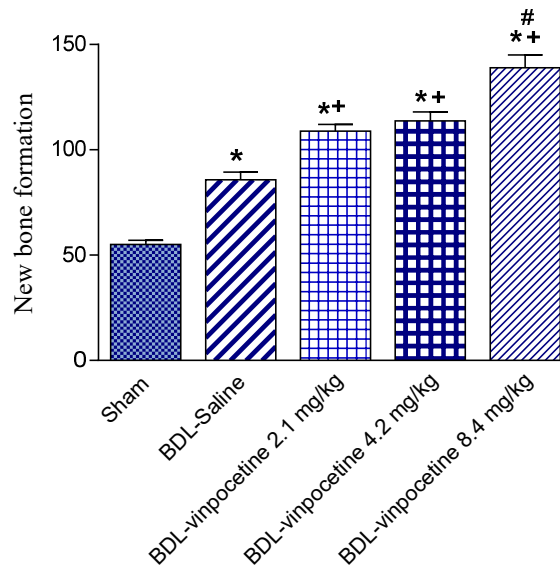


Fig. 10. Areas of new bone formation (mean \pm SEM) in bone of BDL rats treated with different doses of vinpocetine. * $p < 0.05$ vs. Sham control. + $p < 0.05$ vs. BDL-saline. # $p < 0.05$ vs. vinpocetine 2.1 or vinpocetine 4.2 mg/kg

4. Discussion

The rat bile duct ligation model is a widely used one that mimics in many aspects the condition of biliary obstruction in humans such as that occurring in biliary atresia and primary sclerosing cholangitis. The model offers the opportunity to study both the acute and chronic sequel of obstruction to bile flow such as the complicating fibrosis, sepsis and brain oedema (Yang et al., 2010; Yang et al., 2015). In this study, bile duct ligation for one month caused significantly elevated serum activities of ALT and AST. These hepatocellular enzymes are released into the circulation upon damage to hepatocytes in amounts that is dependent on the extent of liver damage. There was also markedly increased serum ALP activity. Alkaline phosphatase is a cell wall enzyme and its synthesis and release from cell surface increases when there is stagnation to bile flow (Giannini et al., 2005). Markedly increased activity of ALP in liver and serum is detectable within 12h after bile duct ligation (Kaplan, 1979, 1983). The increased serum ALP activity therefore reflects the severity of biliary obstruction. The present study also showed that on histopathological examination, the liver tissue suffered ballooning of hepatocytes, fatty degeneration, inflammatory cell infiltration, bile duct hyperplasia and focal necrosis. These results are consistent with the

pathological alterations reported in this model. In their study, Zepeda-Morales et al. (2016) found extensive bile duct proliferation and periductal fibrosis after one month of bile duct ligation in the rat. Other authors reported ductular proliferation and an increase in periportal collagen eight weeks after bile duct ligation in rats (Salas et al., 2007). Inflammation is a hallmark of cholestasis due to the action of the hydrophobic bile salts on the liver parenchyma (Zollner and Trauner, 2006; Wenniger and Beuers, 2010). Following bile duct ligation there is time-dependent inflammatory cell infiltration starting from the seventh day after surgery and decreases with the development of fibrosis around two weeks post-obstruction (Alcarz et al., 2008). One of the important metabolic functions of the liver is the regulation of carbohydrate metabolism through glycogenesis, glycogenolysis and gluconeogenesis (Giannini et al., 2005). Liver glycogen thus reflects the synthetic capacity of the liver and is subject to alterations in liver disease. In this study, marked depletion of glycogen was observed in hepatocytes from bile duct ligated rats.

Osteopenic bone disease is also an important feature complicating long standing cholestasis (Le Gars, 2002; Patel and Munoz, 2015). Osteoporosis has been reported in 15% of patients with primary sclerosing cholangitis (Angulo et al., 2011). Several factors underlie the occurrence of metabolic bone disease in these patients including decreased liver synthetic capacity with decreased formation of fibronectin, Insulin-like growth factor-I, impaired hydroxylation of vitamin D and increased levels of cytokines (Nakchbandi et al., 2014). In the present study bile duct ligation for one month caused decreased osteocyte count and regenerative bone islands. These findings are consistent with earlier observations (Abdel-Salam et al., 2008a,b) and suggest the suitability of this model to study the pathogenetic mechanisms of bone changes in conditions of chronic cholestasis.

Our results show that the administration of vinpocetine was able to ameliorate the increase and to decrease liver damage and to lessen the extent of fibrosis as well as maintain the liver architecture. Vinpocetine also caused marked improvement in the pathological bone changes due to bile duct ligation. These data support the findings in the CCl₄ model of hepatotoxicity (Abdel-Salam et al., 2007) and in hepatic ischaemia/reperfusion injury (Zaki and Abdelsalam, 2013). The mechanism by which vinpocetine protects against the bile salt toxicity is not clear. Vinpocetine is widely prescribed to treat chronic cerebral hypoperfusion and the consequent cognitive deficits that occur due to aging (Patyar et al., 2011). Initially, augmentation of cerebral blood flow and metabolism has been suggested to account for the drug effects (Hadjiev 2003; Jovanović et al. 2013). Recently, vinpocetine was found to possess anti-inflammatory actions by decreasing the release of the proinflammatory cytokines such as tumour necrosis factor-alpha (TNF- α), interleukin-1 β (IL-1 β), IL-1 α , and IL-8 (Gómez et al., 2013; Liu et al., 2014). Vinpocetine was also shown to have antioxidant potential (Abdel-Salam et al., 2011; Zaki and Abdelsalam, 2013) and to increase glucose availability to tissues (Nivison-Smith et al., 2015). Vinpocetine might therefore protect against liver damage caused by bile duct ligation by decreasing inflammation and oxidative stress.

5. Conclusion

At the present time, the use of hydrophilic bile acid ursodeoxycholic acid is the only available treatment for chronic cholestasis (Wenniger and Beuers, 2010). The present study suggests that vinpocetine could be useful in this condition by itself or as an “add on” therapy to ursodeoxycholic acid.

Conflicts of interest

The authors declare that there are no potential conflicts of interest.

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The Thrombolytic and Cytotoxic Effects of *Nigella sativa* (L.) Seeds: The Prophetic Medicine

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ABSTRACT

The Water-Soluble Extract (WSE) is a crude bioactive phytoconstituent of *Nigella sativa* (L.) seeds discovered recently. The current findings report about the thrombolytic and cytotoxic effects of WSE using human blood clot lysis and brine shrimp lethality (BSL) bioassay. The thrombolytic effect of WSE (1,666.67 µg/mL) was determined via the clot and lysate weight measurements compared to streptokinase (STK) of 30,000 IU/mL and normal saline (NS) while the cytotoxicity of WSE (44.14-2,000 µg/mL) against vincristine sulfate (VCS; 3.125-100 µg/mL). WSE has shown extremely statistically significant ($p < 0.0001$) clot lysis (90.00%) compared to NS (3.76%) whilst it was also significantly different ($p < 0.0063$) to STK (72.41%) exhibiting LC₅₀ of 1,795.90 µg/mL vs. VCS (39.25 µg/mL) in a dose-dependent manner. The current results suggested WSE has a potent thrombolytic effect with mild dose-dependent cytotoxicity towards brine shrimp nauplii (*Artemia salina*). It also suggested WSE might have enzymatic roles on thrombin, fibrin, and plasmin of blood. This pharmacological action of WSE is might be due to its antioxidant property, short-chain fatty acids and/or amino acids. Further studies are highly recommended on the enzymatic role(s) and bioactive phytoconstituents of WSE.

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1. Introduction

Nigella sativa (*N. sativa*) is an annual flowering herb of the Ranunculaceae family and genus *Nigella* which has 18 species, native to South and Southwest Asia, Southern Europe, and North Africa. Since 1880, numerous studies had been conducted on its bioactivities including thrombolytic and fibrinolytic properties (Awad and Binder, 2005; Asgary et al., 2012; Lebda et al., 2012). Since time immemorial, *N. sativa* (L.) seeds had been used traditionally in Unani, Tibb, Ayurveda, Siddha, and Arabic medicines (Ahmad et al., 2013). Primarily, it is composed of fixed

oil ($\leq 38\%$), essential oil ($\leq 1.5\%$), dietary protein ($\leq 26.7\%$), fat ($\leq 28.5\%$), and carbohydrate ($\leq 40\%$). In its essential oil, thymoquinone (TQ), the so-called most bioactive compound was reportedly found up to 48% whilst other bioactives include *t*-anethole (4%), 4-terpineol (7%), sesquiterpene longifolene (8%), carvacrol (12%), *p*-cymene (15%), thymol, dihydrothymoquinone (DTQ) and thymohydroquinone (THQ). In fixed oil, it was reported to contain mainly linoleic acid (65%), oleic acid (24%), palmitic acid (20%), dihomolinoleic acid (10%) and eicosadienoic acid (3%) and many fatty acids including sterol esters and glycosides (Ahmad et al., 2013; Al-Jassir, 1992; Houghton et al., 1995; Cheikh-Rouhou et al., 2007; Gholamnezhad et al., 2016).

The WSE was found to be highly polar by nature with solubility in both 5% NaOH and HCl solutions which might be an indication of a wide range of solubility or therapeutic index with active δ^+ and δ^- sites. It has also shown more than two-fold stronger antioxidant capacity than its fixed oil (Babar et al., 2019a).

Thrombolytic or fibrinolytic drugs are being used to treat coronary artery disease, deep vein thrombosis, myocardial infarction, strokes, and pulmonary embolism, etc. Most of the thrombolytic drugs target the fibrin, one of the main constituents of a blood clot to lyse the clot (Babar et al., 2019a; Dewan and Das, 2013). Fibrin, thrombin, and plasmin play vital roles individually and/or collectively in blood coagulation, thrombosis, and hemostasis while various enzymes, cofactors, and receptors, such as serine protease, cofactor V and VIII and protease-activated receptors (PARs) are also involved respectively (Tanaka et al., 2009; Ali et al., 2014; Chapin and Hajjar, 2015).

Cytotoxicity of thymoquinone, essential oil, and different fractions of *N. sativa* (L.) seeds has been studied extensively but there was no such report about WSE. A recent study conducted on the cytotoxicity of various fractions (i.e., petroleum ether, ether, methanol, chloroform, and water) and essential oil of *N. sativa* on brine shrimp through the paper disc and solution methods found petroleum ether and chloroform to be the most cytotoxic with LC₅₀ of 7 and 21 $\mu\text{g/mL}$ respectively whilst the aqueous fraction has shown insignificant cytotoxicity for the above two methods (Mahmoudvand et al., 2017). Therefore, the current study was aimed to investigate the thrombolytic (i.e., % clot lysis) and cytotoxic (i.e., % mortality) effects of WSE using human blood clot lysis and brine shrimp lethality (BSL) assays respectively.

2. Materials and methods

2.1 Extraction and yield of WSE

The detailed process of extraction and yield of WSE has been discussed in our earlier report (Babar et al., 2019a). This is the preliminary study of our recent study (Babar et al., 2019b) on WSE, which was preserved at $3 \pm 1^\circ\text{C}$ in a Falcon® tube (50 mL) wrapped with aluminium foil. It was noted that 1 μL contains ≈ 0.88 mg (w/v) of WSE. A significant amount (≈ 15 g) of WSE was sent safely to the Department of Pharmacy, International Islamic University Chittagong (IIUC), Bangladesh from Kuala Lumpur. Upon arrival at the mentioned institution, the sample was kept at 4°C until use.

2.2 Ethical consideration

As the current study is a part and preliminary experiment of our recent study (Babar et al., 2019b), thus, this study protocol was also approved by the Institutional Ethics Committee (IEC) of the Department of Pharmacy, IIUC under the same reference (Pharm/PND/138/13#2019).

2.3 Guidelines

The current study has strictly followed and maintained the recommendations (v 1.1, June 2018) of the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) on the best practices of venous blood sampling (Simundic et al., 2018). For hatching the brine shrimp nauplii, the notes and instructions of 'Ocean Nutrition Americas', was followed.

2.4 Materials

The stabilized pure streptokinase (STK® Inj.; 1.5 million IU) vial in powder form produced by Incepta Pharmaceuticals Ltd., Sodium Chloride BP 0.9% w/v and Dextrose 5% USP w/v solution (Solodex™ IV Infusion) manufactured by Square Pharmaceuticals Ltd., Bangladesh, and two vials of vincristine sulfate (Criston 2, 2mg/2mL; Beacon Pharmaceutical Ltd., Bangladesh) were bought from a local pharmacy shop in Chittagong. The 50 g of brine shrimp of 'S.K Artemia Cysts' brand imported from Thailand was purchased from a local supplier in Cox's Bazar. The portable aeration pump (Brand: Amplab Bangladesh) with a single air-flow was purchased from the online shopping site (www.daraz.com.bd).

2.5 WSE stock and working solutions preparation

A stock solution of WSE (10,000 µg/mL) was prepared by adding 125 µL of WSE into 11 mL of normal saline (NS) water for both thrombolytic and cytotoxic studies, and 12 random 5x concentrations of aliquots (i.e., 5x/mL w/v; 3 mL/aliquot) for 44.14, 66.21, 88.28, 132.42, 176.56, 264.84, 353.13, 529.69, 706.25, 1059.38, 1,412.50 and 2,000.00 µg/mL of WSE were prepared by adding the corresponding volume of 66.21 µL, 99.32 µL, 132.42 µL, 198.63 µL, 264.84 µL, 397.26 µL, 529.70 µL, 794.54 µL, 1,059.38 µL, 1,589.07 µL, 2,118.75 µL and 3,000 µL of WSE from the stock respectively into ≤3.00 mL (i.e., 2,933.79 to 0.00 µL) of the artificial seawater (3.8% NaCl/L w/v, pH 8.0). For thrombolytic assay, 166.67 µL of stock was directly added into the tubes (n=6×3) containing 0.5 mL blood and filled up to 1.0 mL using NS (≈333.33).

2.6 Preparation of streptokinase (STK) stock

The powder form of STK vial (1.5 million IU) was reconstituted and diluted by adding 5.0 mL of Solodex™ IV Infusion at the sidewall of the vial just immediately before the use. It was tilted, rolled gently until fully reconstituted. The stock concentration was 300,000 IU/mL.

2.7 Preparation of vincristine sulfate (VCF) solution

The two VCF vials (Criston 2; 1mg/mL; 2mL/vial) were further diluted by adding 2 mL of normal saline (NS; 0.9% NaCl) to each vial to get a 4 mL vial of 500 µg/mL of two stocks so that six consecutive concentrations (500-15.625 µg/mL) of aliquots (4 mL/tube) could be prepared and the stocks also left with 3 mL/vial after dilution. The details of the dilution process have been described graphically in Fig. 4.

2.8 Blood samples collection

After having the prior consent, the whole fasting blood (WFB) sample (5.0 mL/subject) of adult male (23-26 years old) was aseptically withdrawn in the morning (i.e., 8:00-8:15 am) after at least 12 hr of fasting using a 5.0 mL syringe with a needle via venipuncture method (Simundic et al., 2018).

2.9 Brine shrimp nauplii hatching & collection

The brine shrimp nauplii were hatched in 1 L of artificial seawater (i.e., 3.8% NaCl/L w/v) prepared by adding 38 gram of unrefined sea salt into 1 L of distilled water in a beaker to which 2.5 g of 'S.K Artemia Cysts' was added. A 60 W bulb above the beaker (8"), single air-flow aeration pump and glass thermometer was fitted to maintain the light, the temperature at 28 °C and oxygen supply while the pH was 8. The brine shrimp nauplii hatched after 24 hr were immediate transfer to a freshly prepared media before drug exposure.

4.10 Thrombolytic assay

The in-vitro thrombolytic activity of WSE was performed using the methods described by (Prasad et al., 2006) with some minor modifications followed by the EFLM recommendations (Simundic et al., 2018). 0.5 mL of WFB sample from each subject in a triplicate manner for three different tests (i.e., NS, STK, and WSE) was transferred into the corresponding pre-weighed (0.80 ± 0.01 g/empty tube) sterile collection tubes (1.5 mL) and were again weighed before incubation for 45 minutes at 37°C to allow clot formation. After clot formation, the serum was gently aspirated and the weight of each of the 54 tubes ($n=6 \times 3 \times 3$) containing blood clot was taken at room temperature ($24 \pm 2^\circ\text{C}$) before NS, STK and WSE was added. Subsequently, 166.7 μL of WSE from the stock was added into 18 respective tubes ($n=6 \times 3$). Similarly, 100 μL of STK (300,000 IU/mL) and 500 μL of NS (0.9% NaCl) were added before incubation at 37°C for 90 minutes and observed closely for clot lysis. After incubation, the lysate (i.e., upper phase) was discarded carefully and the weight of the tube containing the blood clot was recorded. The difference in clot weight before and after lysate formation was expressed as the percent of clot lysis (Fig. 1) using the following equation (1).

$$\text{Clot lysis (\%)} = \frac{(\text{Weight of lysate})}{(\text{Weight of clot before lysis})} \times 100 \quad \text{Eq. 1}$$

The weight of blood clot was calculated using the equation (2) as followed;

$$\text{Weight of clot (g)} = \text{Weight of tube containing blood clot} - \text{Weight of empty tube} \quad \text{Eq. 2}$$

2.11 Brine shrimp lethality (BSL) bioassay

The BSL bioassay was carried based on the methods of (Meyer et al., 1982; Houghton et al., 1995; Cheikh-Rouhou et al., 2007; Gholamnezhad et al., 2016), with few modifications. 10 healthy-looking immobilized nauplii (Babar et al., 2019a) along with 1 mL of media were transferred into each of the 57 glass test tubes labeled and prefilled with 1 mL of fresh media in advance. Then, 1 mL of WSE from each of the 12 aliquots, 1 mL of VCS from each of the 6 aliquots were added in triplicate manner. The volume was filled up to 5 mL using the seawater. The negative control contained only 5 mL seawater. The final log concentrations of VCS were from 100 to 3.125 $\mu\text{g/mL}$ (Fig. 4). Finally, all the treated and control groups (5 mL/test/tube) were incubated at room temperature ($26 \pm 1^\circ\text{C}$) for 24 hr (12/12; light/dark cycle), the survived and died nauplii population was screened and counted using a handheld magnifying glass. The median lethal concentration (LC50) of the test samples was calculated from the linear regression equation of the scatter graph whilst the % of mortality was calculated by using the following equation (3):

$$\% \text{ Mortality} = \frac{(\text{Total no. of nauplii died/treatment})}{(\text{Total no. of nauplii used/treatment})} \times 100 \quad \text{Eq. 3}$$

2.12 Data analysis

The results are expressed as mean \pm SD and compared between treated and control groups, employing a Student's unpaired two-tailed *t*-test using GraphPad Prism 8 online. A *p*-value of less than 0.05 was considered statistically significant.

3. Results and Discussion

3.1. Thrombolytic effect of WSE

The exposure of a single, randomly selected WSE (1666.67 $\mu\text{g/mL}$) to healthy adult male human blood ($0.5 \text{ mL} \times 3$) against streptokinase (STK: $72.41 \pm 0.01\%$) of 30,000 IU/mL and normal saline (NS: $3.76 \pm 0.49\%$) has shown statistically significant ($p < 0.0063$ & $p < 0.0001$) % clot lysis by WSE ($90.00 \pm 0.02\%$) as shown in Fig. 1.

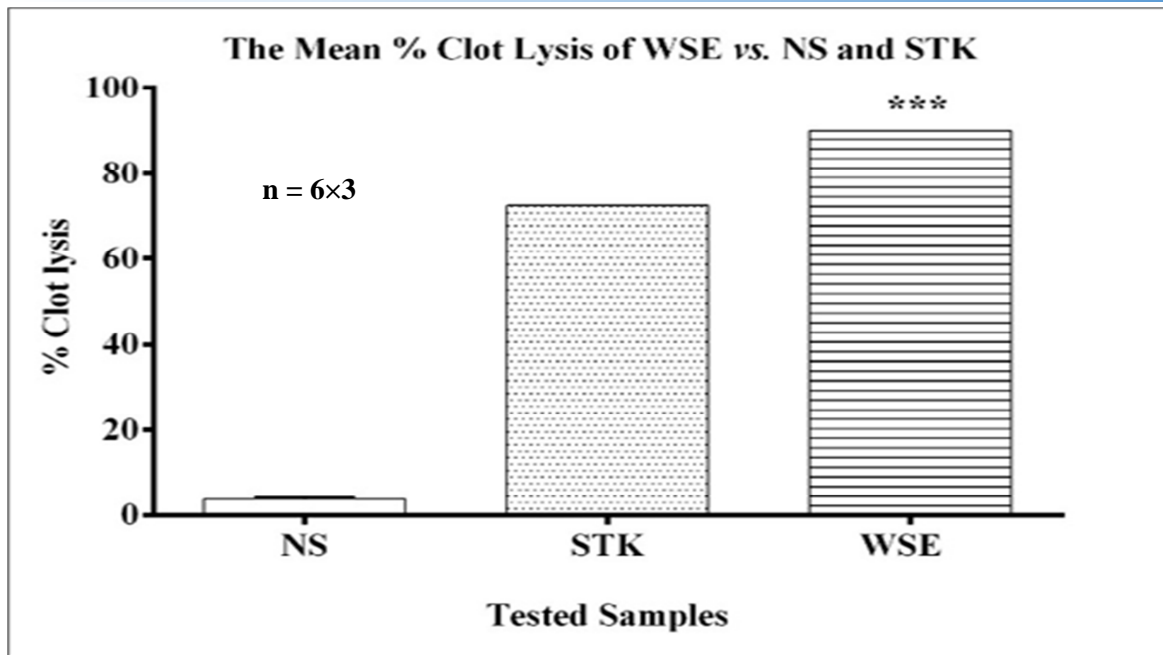


Fig 1. The mean % clot lysis \pm SD of WSE ($90 \pm 0.02\%$) after 24 hr of exposure vs. normal saline, NS ($3.76 \pm 0.49\%$) and streptokinase, STK ($72.41 \pm 0.01\%$). * Indicates the % clot lysis of WSE to be extremely statistically significant ($p < 0.0001$) vs. NS and ($p < 0.0063$) vs. STK.

3.2. Cytotoxic effect of WSE

The exposure of twelve randomly selected concentrations of WSE (44.14, 66.21, 88.28, 132.42, 176.56, 264.84, 353.13, 529.69, 706.25, 1059.38, 1,412.50 and 2,000.00 $\mu\text{g/mL}$) to brine shrimp nauplii for 24 hours against the vincristine sulfate, VCS ($\text{LC}_{50} = 39.25 \mu\text{g/mL}$) in artificial seawater (3.8% NaCl/L) has exhibited very mild cytotoxicity bearing $\text{LC}_{50} = 1795.90 \mu\text{g/mL}$ as shown in Fig. 2. The current result of WSE is about 46 times less potent than VCS, Fig.3. It is also found that the current LC_{50} of VCS is more than 8 times potent than a previous report ($\text{LC}_{50} = 0.33 \pm 0.055 \text{ mg/mL}$) made by (Rahmatullah et al., 2010).

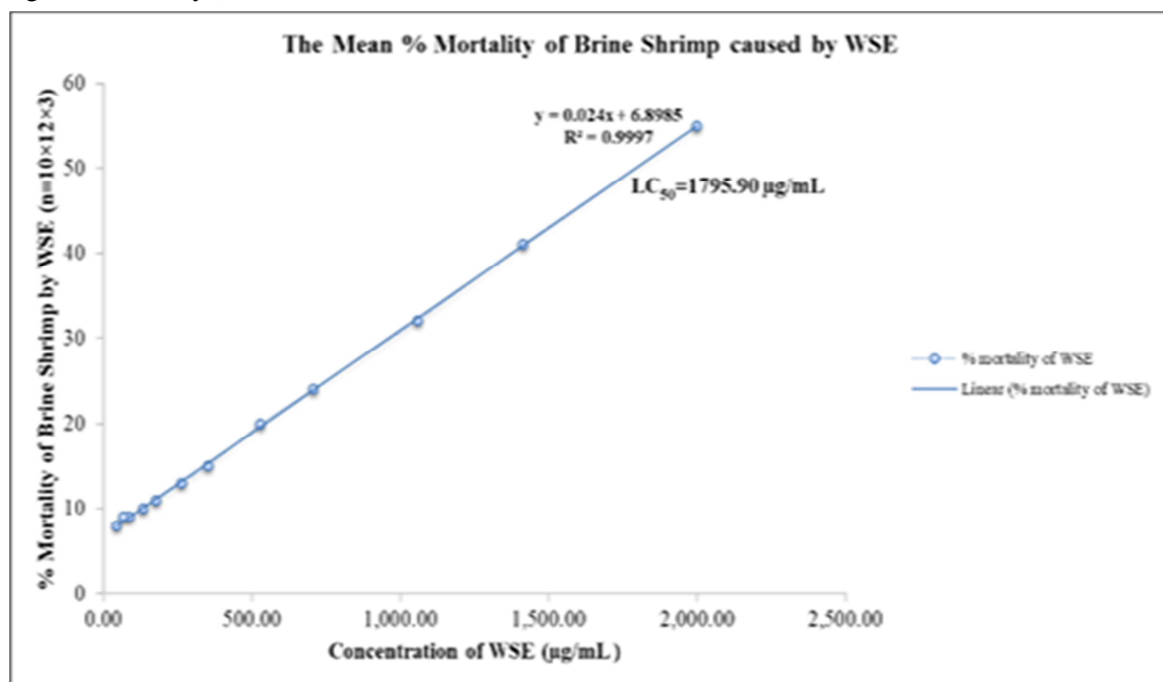


Fig 2. The mean % mortality of brine shrimp nauplii ($n = 10 \times 12 \times 3$) caused by WSE of 44.14-2,000 $\mu\text{g/mL}$ in triplicate manner, after 24 hr of exposure at room temperature showing $\text{LC}_{50} = 1795.90 \mu\text{g/mL}$.

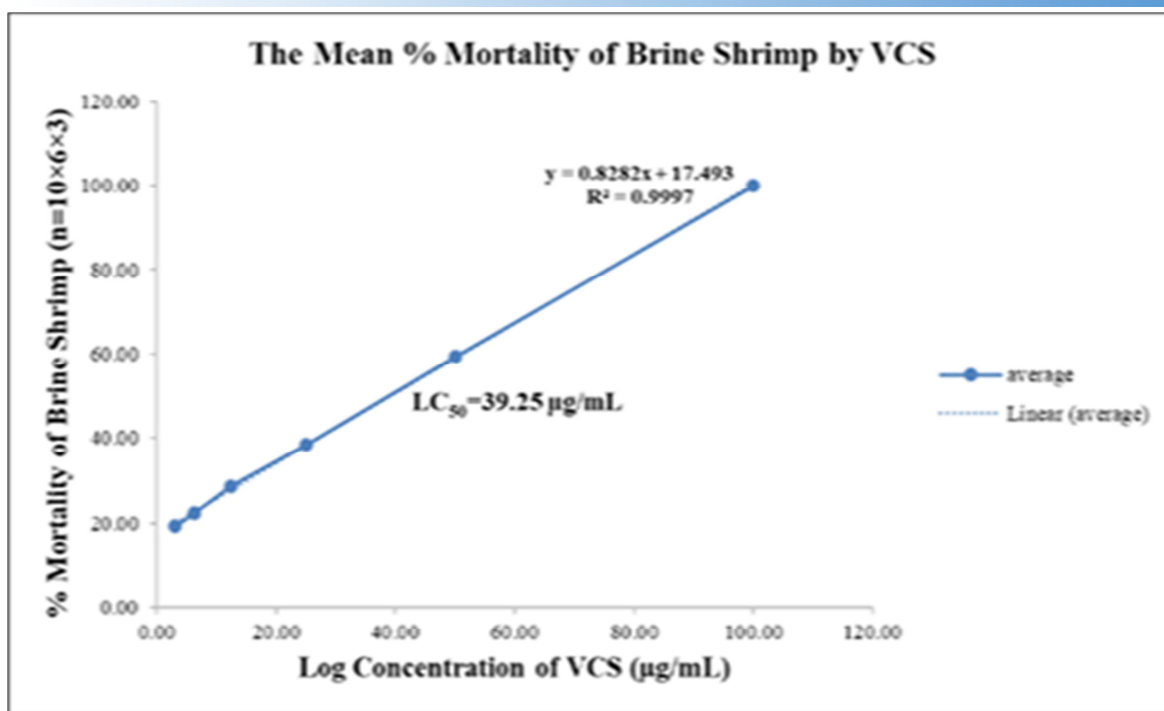


Fig 3. The mean % mortality of brine shrimp nauplii (n=10×6×3) caused by the VCS of 100-3.125 µg/mL in triplicate manner after 24 hr of exposure at room temperature having LC₅₀=39.25 µg/mL.

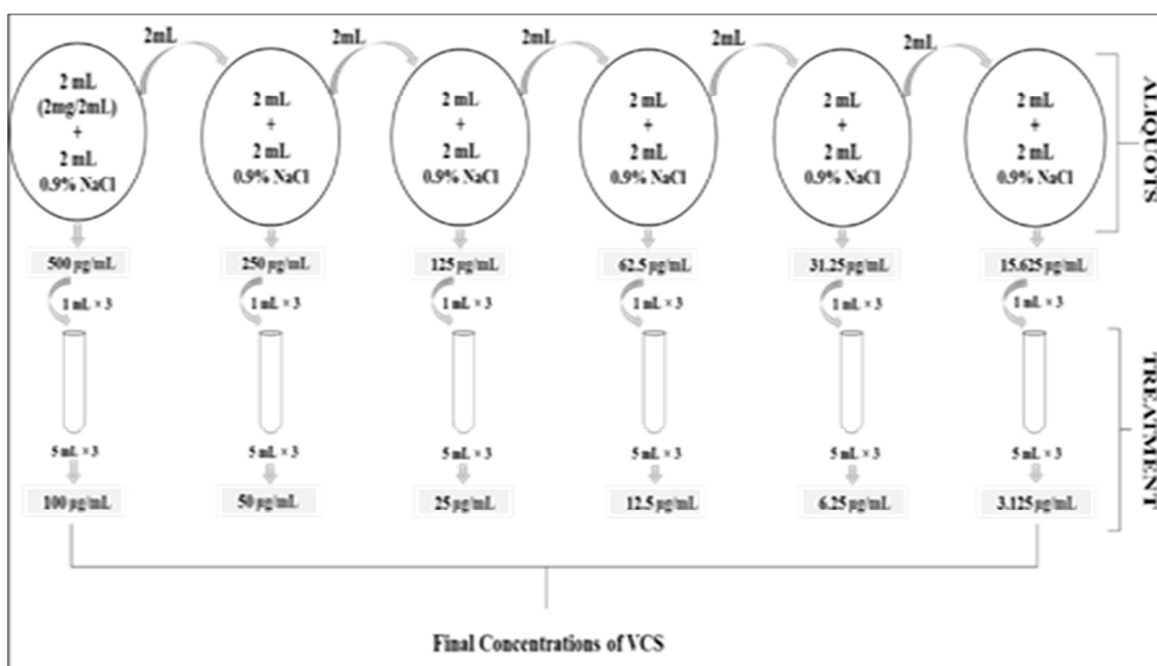


Fig 4. The preparation of six vincristine sulfate (VCS) aliquots (500-15.625 µg/mL) (4 mL/aliquot) via serial dilution using normal saline (NS), and treatment (5 mL) concentrations (100-3.125 µg/mL) in triplicate manner.

4. Conclusion

It could be concluded that WSE has a potent thrombolytic effect with mild dose-dependent cytotoxicity towards brine shrimp nauplii (*Artemia salina*). It is also proposed that WSE might have a vital enzymatic role on thrombin, fibrin, and plasmin of blood which may involve serine proteases and protease-activated receptors (PARs). This pharmacological action of WSE is might

be due to its antioxidant property, short-chain fatty acids, and/or amino acids. Further studies are highly recommended on the enzymatic role(s) and bioactive phytoconstituents of WSE.

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Extent of Awareness on Halal Food Among Muslim Students Consumers of The University of Southern Mindanao

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ABSTRACT

Being Muslim residents of a non-Muslim country like the Philippines, awareness of the fundamental beliefs in Islam down to its most basic tenets are often times a challenging issue. This study focused on the extent of student awareness on halal products. Using quantitative research design the researchers surveyed 120 student consumers, the paper finds that with an overall mean score of 3.42, indicates that they are aware of the importance of adhering to the Islamic teachings of halal foods and agreed, with 2.85 total mean score, that the teachings of Islam on matters concerning halal is not limited only to food and drinks but to include all mu'amalat (day-to-day dealings of men with their fellows). Logistic Regression Analysis results show that with all participants' demographic profile tested only secular and Islamic education is found to have statistical significant and are positively correlated with halal awareness. This study concludes that despite living in non-Muslim majority country where values and etiquettes is defined by dominant un-Islamic cultures and traditions in the country, Muslim are still well-guided and aware of their fundamental beliefs in Islam.

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1. Introduction

Muslims are obliged to pursue what is stated in the Holy Quran and Traditions (sunnah) of Prophet Muhammad. One of it is a set of dietary laws. In this law, Muslim must consume halal foods and avoid haram foods. Halal is an Arabic word which means 'lawful, legal, licit, legitimate, permissible, allowable, permitted, allowed, admissible, unprohibited. The food consumed by Muslims are lawful or permitted unless, the food being categorized in Holy Quran and Hadith as haram or forbidden. A set of dietary in food consumption is one of the rules in ensuring good well-being.

Halal food is becoming a lucrative business not only among Muslim but also non-Muslim countries. Muslims have always been associated with Islam which is directly link to halalan and toyyiban (good quality and clean). The question of understanding among Muslims about halal food is posed because food market is managed by all ethnic groups.

Halal food demand has increased tremendously in parallel with the expansion of 2.1 billion Muslim populations around the world. According to Mariam (2010) size of halal market throughout the world is about USD 2.1 trillion and in 2011 it is estimated that the size of halal food sector is USD 661 billion. Halal market is growing fast and has been increasing at an estimated 25% per year.

In Malaysia, the application of halal certification and logo is based upon request of food producers. Those with halal certification and logo have the advantages of capturing a bigger market. Because 60.4% of Malaysians are Muslims. Social awareness can be described as a contextualized cognizance either of oneself or of another person.

In the context of this study the authors examined the extent of awareness on halal food among student consumers of University of Southern Mindanao (USM) including their attitude in choosing food in varied food outlets, for example do they look out for halal logo or JAKIM and IDCP signage when choosing an eatery outlet? This study was conducted among the Muslim students of the University of Southern Mindanao (USM), Kabacan, Cotabato.

The study generally aimed to determine the extent of awareness on halal food among Muslim student consumers of University of Southern Mindanao (USM). Specifically, it aimed to Determine the socio-economic and demographic profile of the respondents; Ascertain the extent of awareness on halal foods among the targeted respondents; and, Identify the attitude of respondents toward Halal foods.

This study is significant for the business sectors who are in the halal business as it reveals the extent of awareness on halal food among Muslim student consumers in the University of Southern Mindanao including their attitudes on choosing halal foods. Religious sectors of the society will also gain benefits from this study as it provides information on areas where Muslims food consumers' needs more clarification and further guidance. Moreover, this study served as general reference for the Muslim student's consumers to be aware of the non-halal foods. The food producers will also see this study as significant to enhance marketability of their products and upgrade the quality of food industry in the university. Furthermore, this study also served as basis in local policy issues..

2. Materials and methods

This research used descriptive statistics in nature, to examine the extent of awareness on halal food among Muslim student consumers. The study was conducted among the students of the University of Southern Mindanao, main campus in Kabacan, Cotabato from January to December 2018. The sample size of this research was determined using the Systematic and Convenience sampling. Convenience sampling in this study, refers to the collection of information from the sample population who were conveniently available to provide information. By systematic, it refers to the use of documented names of Muslim students in the university. This research used survey check list. - a questionnaire used to measure the extent of awareness on halal food among Muslim student consumers to enrich the discussion. Surveys were also administered among personnel of accredited Halal restaurant and service food provider in the research areas. The respondents needed to select their awareness level by using 4-point Likert Scale where; "1" indicates not fully aware and "4" indicates fully aware. The questionnaire contains four main sections: 1) socio-demographic, 2) extent of awareness on halal food among Muslim students' customers, and 3) attitudes of consumers towards halal foods. The data were analyzed and interpreted using statistical tools such as frequency counts, mean score, percentage distribution and multiple logistic regression analysis.

3. Results and Discussion

Extent of Awareness on Halal food

The results in the table 1 showed that respondents replied aware on the following survey questions: "I am aware that *Halal* is from nurturing to slaughtering a process"; "I am aware that *Halal* is also related with food quality."; "I am aware that food product, if doubts are raised about it by my peers and family, is *haram*"; "I am aware that all food products with *halal* logo are permitted."; "I am aware that food even without *halal* logo as long as the food is made in Islamic country, is *halal*.";

It indicates that they responded fully aware on the survey questions: “I understand what *Halal* and *haram* from Qur’an and Sunnah of the prophet.”; “I am aware that eating *halal* food is religious obligation.”; “I am aware that alcohol and pork are not *halal*.”; “I am aware that *halal* is clean and healthy.”; “I am aware that *halal* is permitted by Islamic law.”;

Table 1. Extent of Awareness on *Halal* food among Muslim student’s consumers of the University of Southern Mindanao.

Provision Statement	Mean	Qualitative Description
1. I understand what <i>Halal</i> and <i>haram</i> from Qur’an and Sunnah of the prophet.	3.48	Fully aware
2. I am aware that eating <i>Halal</i> food is religious obligation.	3.63	Fully aware
3. I am aware that <i>Halal</i> is from nurturing to slaughtering a process.	3.20	Aware
4. I am aware that <i>Halal</i> is also related with food quality.	3.44	Aware
5. I am aware that food product, if doubts are raised about it by my peers and family, is <i>haram</i> .	3.21	Aware
6. I am aware that alcohol and pork are not <i>halal</i> .	3.71	Fully aware
7. I am aware that <i>halal</i> is clean and healthy.	3.67	Fully aware
8. I am aware that <i>halal</i> is permitted by Islamic law.	3.53	Fully aware
9. I am aware that all food products with <i>halal</i> logo are permitted.	3.19	Aware
10. I am aware that food even without <i>halal</i> logo as long as the food is made in Islamic country, is <i>halal</i> .	2.93	Aware
Overall Mean	3.42	Aware

Attitudes toward Halal food

Table 2. shows that they agree on the following provision statements: “I believe that the restaurants are *halal* when the staffs wear 'kopiah or headscarf/hijab.”; “I eat food products even without *halal* logo as long as the food is made in Islamic country. ”; “I do not mind eating at the restaurants operated by non-Muslims since it has *halal* logo”; “*Halal* logo is not important as long as the ingredients are free from pork or alcohol.”; “I choose restaurant surrounded in a Muslim community.”; “I ask first (*halal*, prices) before choosing the food.”;

Disagree on the statements: “I believe that almost restaurants have *halal* logo.”; “I do not eat food which I did not see the slaughtering process.”; and strongly agree on: “I eat clean and healthy *halal* food.”

Table 2. Attitude of respondents toward *halal* food.

Provision Statement	Mean	Qualitative Description
1. I believe that the restaurants are <i>halal</i> when the staffs wear 'kopiah or headscarf/hijab.	2.61	Agree
2. I eat food products even without <i>halal</i> logo as long as the food is made in Islamic country.	3.06	Agree
3. I do not mind eating at the restaurants operated by non-Muslims since it has <i>halal</i> logo.	2.83	Agree
4. <i>Halal</i> logo is not important as long as the ingredients are free from pork or alcohol.	2.68	Agree
5. I believe that almost restaurants have <i>halal</i> logo.	2.48	Disagree
6. I do not mind <i>halal</i> logo as long as the food is delicious and cheap.	2.18	Disagree
7. I eat clean and healthy <i>halal</i> food.	3.60	Strongly Agree
8. I choose restaurant surrounded in a Muslim community.	3.48	Agree
9. I do not eat food which I did not see the slaughtering process.	2.14	Disagree
10. I ask first (<i>halal</i> and prices) before choosing to eat the food.	2.68	Agree
Overall Mean	2.85	Agree

Table 3 Multiple Logistic Regression Validation of statistical assumptions

Table 3.1 Model fitting						
Model no.	Variable excluded in the equation	R ²	Adj. R ²	F Statistics	Std. Error	p-value
Model 1	None	0.1521	0.09906	2.869	1.024	0.00857
Model 2	Age	0.1314	0.08524	2.848	1.032	0.01277
Model 3	Year Level	0.1066	0.05917	2.247	1.047	0.04368
Model 4	Sex	0.1429	0.09736	3.139	1.025	0.00696
Model 5	Civil Status	0.1342	0.08824	2.919	1.03	0.01101
Model 6	Weekly Allowance	0.152	0.107	3.376	1.02	0.00423
Model 7	Islamic Education	0.03782	0.1138	2.419	1.043	0.03088

Model comparison is performed to identify which linear combination best fits the regression analysis. Regression model is best fit on the basis of comparably higher R², adjusted R², F- statistics, lower standard (Std.) error term and lower p-value. ¹ Table 4.1 shows that model 1 shows the highest R² but model 6 shows high adj. R², F-statistics with lower Std. Error and p-value. This indicates that model 6 is best fit the regression equation.

¹ Selva Prabhakaran. (n.d) "Linear Regression". Retrieved from: <http://r-statistics.co/Linear-Regression.html>. Retrieved date: 09/11/2020.

Table 3.2. AIC and BIC result for model comparison

Model no.	Variable excluded in the equation	AIC value	BIC Value
Model 1	None	356.0365	381.124
Model 2	Age	356.9301	379.2301
Model 3	Year Level	360.3031	382.603
Model 4	Sex	355.3302	377.6301
Model 5	Civil Status	356.5364	378.8363
Model 6	Weekly Allowance	354.043	376.343
Model 7	Islamic Education	359.3311	381.631

Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC) are also model comparison tool or regression analysis. The lower the AIC and BIC the better the model. Table 4.2 verifies that model 6 is the best fit for having lowest AIC and BIC value. Thus, the model is hereby by selected as regression model and remove weekly allowance from the equation.

Table 4. Logistic Regression Analysis

Provision statement	Coefficient	β	p -value
	(Intercept)	2.688e+00	0.0101 *
	Age	- 0.08487	0.09800 .
I ask first (halal, prices) before choosing to eat the food	Year level	0.24219	0.01531 *
	Gender	0.20985	0.26864
	Civil Status	0.66287	0.11850
	Islamic Education	0.25882	0.02563 *
	Parents' Islamic Education	0.0989	0.34447

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Table no. 4 shows multiple logistic regression analysis result which indicates that on provision statement “*I ask first (halal and prices) before choosing to eat the food*”, the p -value for “Year Level” in secular school and “Islamic Education” is significantly lower than the alpha level 0.05. Being $p < 0.05$, this means that both variables are statistically significant predictor for the provision statement. Secondly, the beta (β) test value of coefficient *year level*, 0.25 and *Islamic education*, 0.26 are positive. This indicates that the higher the year level of the respondents in secular education the higher they likely agree on the provisional statement. Also, the higher the Islamic education they acquired the higher the chance they also agree on the same statement.

4. Conclusion

The awareness and attitude on halal food concept varied among the respondents. Some of them are aware and very particular about halal, they will only consume products with the Halal logos, but others do not bother much, as long as the food came from Muslim countries with Arabic sounded-brand names, such products are considered Halal already.

It is also concluded that the awareness among consumers could be a major determinant factor in purchasing decision process. It further concluded that the Muslim consumers, despite of their age and weak Islamic education, they have strong believe in the importance of Halal consciousness as one aspect of getting good relationship to God (Allah). The results further concluded that the

Muslim consumers are very particular and concern about their food intake and only Halal food will be their preferences..

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Consumer Behavior Changes Post Pandemic Covid-19

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ABSTRACT

The Corona virus or Covid-19 which is unexpected will come to us, has an impact on health, economy and also humanity throughout the world and is able to fundamentally change the world. Supplements are disrupted because production is stopped, retail stores close, causing consumers to change their behavior, which had previously gone offline shopping. Not just shopping, when a pandemic, the way of thinking becomes different. Consumers around the world are looking for products and brands through new ways and new habits are formed. Online transactions focus more on basic products to make ends meet. The fact that Covid-19's anti-virus has not been found raises concerns about disrupted health and the Government's regulation to work and stay at home also raises concerns about disrupted businesses. Differences from habits and interests or preferences that are different for each person, provide different responses to the problems faced and solutions for the future. The habit of shopping offline has a tendency to continue for complementary products while food products are more directed towards offline. The rest eating habits at home can be continued because it provides more hygiene guarantees. The new habit of holding online meetings with distant relatives or colleagues will be increasingly considered given the many more positive things that can be obtained. Likewise with work problems, working from home is more interesting to consider because it is more efficient and effective and the results can be more productive. This new consumer behavior is adjusted to provide satisfaction for many parties, with the assistance of institutions or governments that oversee the security of supply and demand and maintain the stability of both.

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1. Introduction

Corona Virus outbreak or Covid-19 that hit the world has an impact on health, economy and also humanity. Humans are social creatures that allow direct interaction with each other thus accelerating the spread of the Covid-19 pandemic. One way to inhibit or reduce the level of spread of the Corona virus is classified as fast, the public is asked to Work From Home (WFH) and Stay at home unless there are things that are very important that must be done outside the home and even then must follow the health protocol. The COVID-19 pandemic has fundamentally changed the world (www.accenture.com). The supply chain was shocked, because production stopped, retail shops were closed. As we know it. When a pandemic lives differently, shop differently, and think differently. Consumers around the world are looking for products and brands in new ways. New habits are formed. To meet daily needs, alternative options have been developed, by shopping

online. Online transactions are now more focused on basic products to meet the needs of life. Shopping online is not new for the community at this time, but shopping online now is rather different because it is done by almost everyone to get daily necessities for the purpose of survival is not to fancy or fun. Consumers when the Pandemic occurs will tend to ignore prices and pay more attention to value / quality, and when this happens the price becomes high because only the products needed and that are of good quality or have good value will be bought by consumers, while supplies are reduced due to stalled production. On the other hand, consumers also try to hold their money to buy complementary products such as vacation packages, cellphones, or goods to distribute hobbies. (www.jurnal.id). Although it is preferred now, shopping online certainly has limitations, such as limitations in getting products that are suitable for the buyer in a number of ways such as quality, color, style, requires time to wait for shipping and others. Information related to consumer complaints when online transaction, such as leaking of consumer data in certain e-commerce sites, receives special attention from the Government so that things like this do not happen again. Regulators try to create new rules and complement / implement existing ones, in order to respond to this new habit. The consumer's need to get these good quality and safe products is the right of consumers who need to get protection from the Government. Consumers hope that brands can contribute to our social welfare. A recent survey reported that the majority of consumers believe that brands are stronger than the government in terms of dealing with social problems. (www.Forbes.com).

2. Covid-19 Impact

The impact of COVID-19, on health, the economy and humanity is very worrying. In some places in various countries, it seems that people do not follow the government's recommendation to stay at home, but they still carry out their activities, such as during religious holidays many people still insist on going to their hometowns even though some roads have been closed. Or there are also people who return to their hometowns because in the city where he works, he has lost his job. Even though the Government has forbidden them not to go anywhere to break the chain of transmission of Covid-19 transmission. Of course this is not an easy job for the Government. Even in a country to impose sanctions on citizens who leave the house with goals that are not too important, just so that people can comply with regulations and discipline.

In lower economic societies, sellers in traditional markets reject the rules for work from home or stay at home, arguing they must go to the market in order to sell their merchandise, if they do not do so, they will not get an income. In large industries, business people are forced to stop production for various reasons, such as the supply of raw materials that are disrupted, employees who are required to work at home, even though not all work can be done at home like factory employees who use large machinery. Business was disrupted and forced to lay off employees.

The limited supply and the cessation of production, can cause a rush, the supply of staples is really a priority thinking of the Government. If this happens, there is a big possibility that chaos can occur because of the limitations of basic food. Concern increased again when there were prisoners released from prison, the threat of security increased. Concern People throughout the world are not only pandemic but also the time after that is called New Normal which is a normal state which is certainly not the same as normal before. According to the research, Personally, health concerns are as great as economic concerns, which are 64%, while socially, 88% are consumers' concerns about the economy, and 82% are concerned about the health of others, outpacing fear of personal health or safety personal work, as shown in Fig (1).

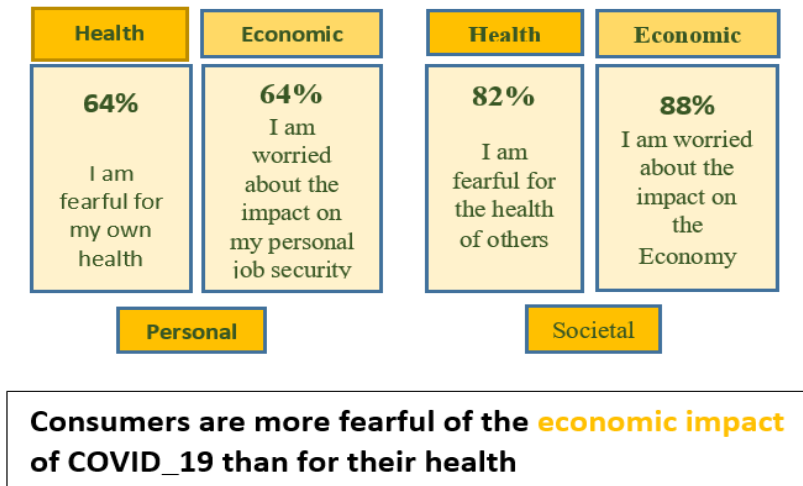


Fig.1 Consumer’s fear for themselves along with the broader society

Modified after Accenture Covid-19 Consumer Research, conducted April 2–6. Proportion of consumers that agree or significantly agree (www.accenture.com).

Such concerns are caused by uncertainties and consumers try to overcome these uncertainties. Some questions such as why should I buy, what should I buy and how do I buy. As stated above, the priority of consumers has been focused on the most basic needs, such as hygiene products and basic needs, where both products have increased demand soaring and the needs of other products such as clothing / fashion dropped dramatically. At the beginning of the pandemic, the whole community felt shocked by the presence of this unexpected Corona Virus or Covid-19, consumers immediately hunted for cleaning products and sanitizers to protect themselves from being exposed to Covid-19 transmission and staple food products, through online from producers that consumers are familiar with, just to reduce their worries. The rest consumers will choose products that are manufactured in accordance with recognized brands, as illustrated in Fig. (2).

The research proves consumers are very focused on their basic need at present

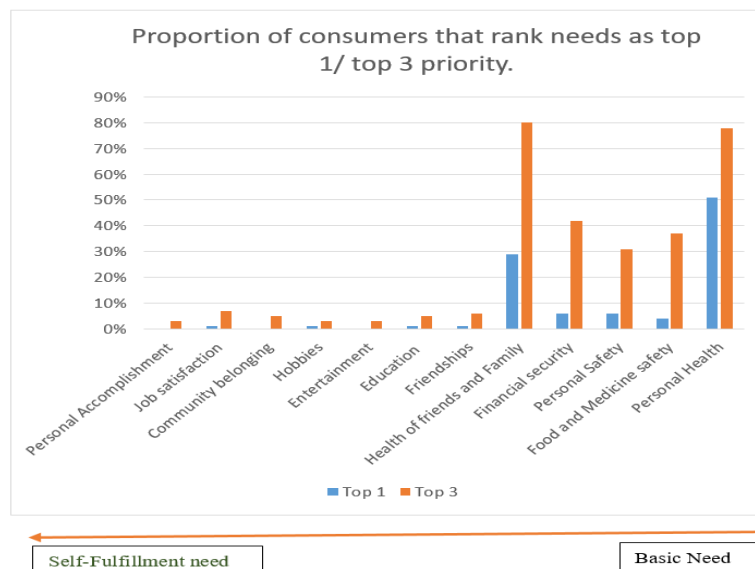


Fig.2 Basic needs are top of mind consumers versus self-fulfillment.

Modified after Accenture.com. Accenture Covid-19 Consumer Research, conducted April 2–6. Fast changing consumer behavior.

Meanwhile, Nielsen's research results stated that non-food sales moved more to online and food sales moved more to offline as show as Fig.(3).

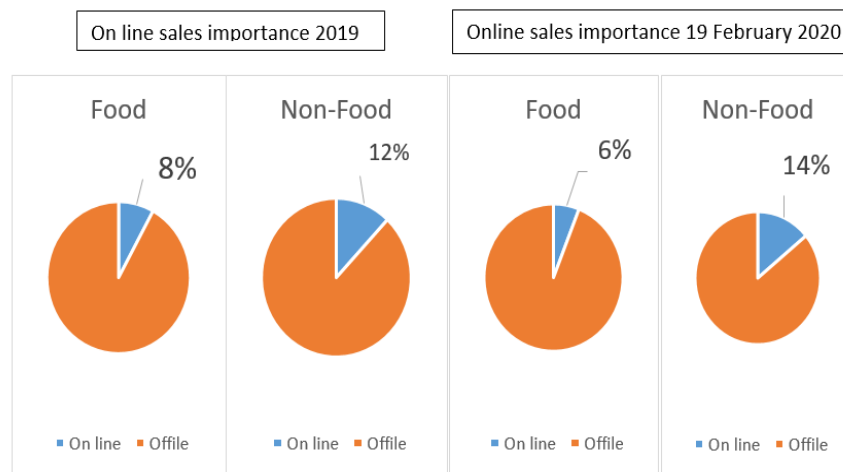


Fig. 3 Non-food sales moved more to online and food sales moved more to offline.

Modified after Covid-19: Entering a new normal in consumer behavior (Source: www.nielsen.com)

For example, six percent of Fast Moving Consumer Good (FMCG) sales in Singapore came from e-commerce in 2019. After Disease Outbreak Response System Condition stands for Orange means the disease was severe and spread easily, but still contained was activated, online FMCG sales reached 8%. This was driven mainly by the non-food category which rose from 12% in 2019 to 14% during COVID-19. On the other hand, the food category shifted to the offline market - e-commerce sales fell from 8% in 2019 to 6%, highlighting the importance of physical stores and hypermarkets (www.nielsen.com). Food products need to be equipped with various certificates and informative packaging / labels, such as Halal certification, GMP, HACCP, ISO 22000, serving dose provisions, lab test results, expired date, etc., even more physical appearance is paid attention to fresh products.

3. What Are Consumers Spending Time When Pandemic

Every person has different habits and preferences / interests in life, some are accustomed to activities outside the home and almost just to sleep when at home, there are those who actually prefer to stay at home and do not feel bored at all, and some are happy at home but happy also to act outside the home or vice versa. Such circumstances occur under normal circumstances before the Pandemic. When a pandemic, of course, be different, where everyone is required to work from home and be at home. Of course this has become something that is not pleasant for a group of people who have the habit or interest to do activities outside the home. They seemed to be imprisoned because they felt restricted in the house. But there is no choice, everyone must obey the rules.

The habit of eating outside the home has changed, many people have begun to explore their ability to cook their favorite foods at home. If you feel like you are getting bored of cooking, occasionally buy online, because cooking alone is certainly more guaranteed hygiene.

The presence of all family members at home, makes people spend more time with family, chatting, even worshipping together in the house becomes more frequent and intense, an intimacy there. Online meetings are also used for large family gatherings that are separated by large distances. And to enjoy life, people watch films and news through TV and internet channels.

For work or business, with all these limitations, people create an online meeting. An emerging trend arises, where all meeting activities are done online. In addition to meetings, seminar activities which should be carried out in a particular building or room and attended by many people, are carried out using webinar facilities. Even more interesting, apparently online meetings can actually bring people or employees who are separated long distances such as central employees with branch employees, thus making the meeting more complete.

Working at home can also be more productive, employees do not lose the long hours needed to go from home to the office, and vice versa. This habit can encourage the activities of working remotely more enjoyable.

4. Are We Going To Have A Work Revolution

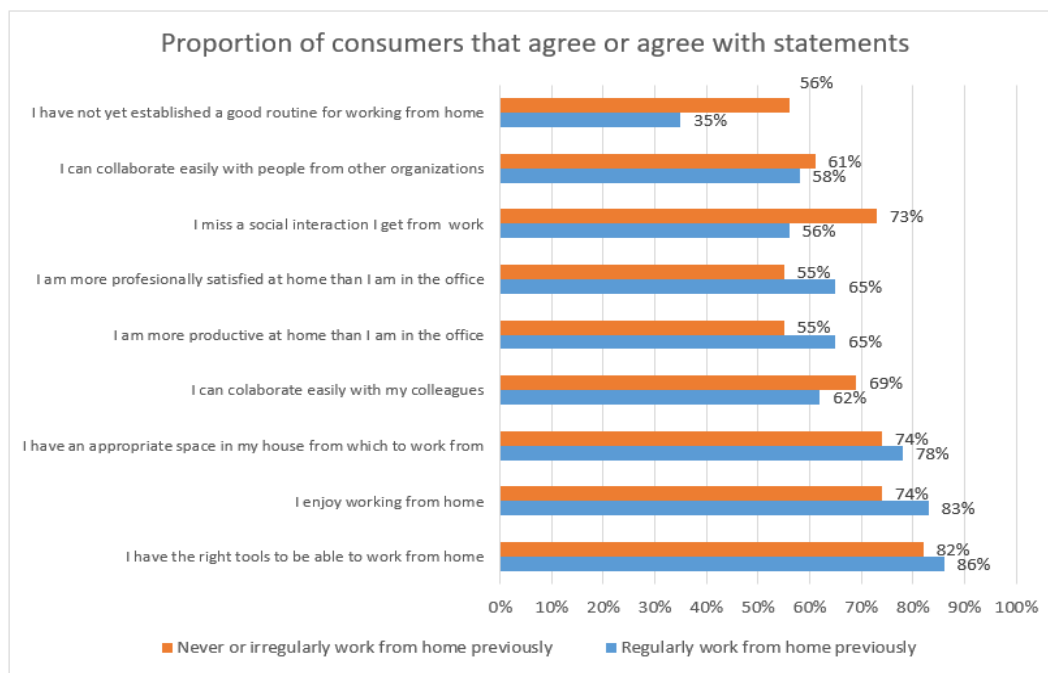


Fig.4 Both regular remote workers and those new to working from home find benefits.

Modified after. Accenture.com. Accenture Covid-19 Consumer Research conducted April 2-6, Respondents working from home

From the picture it turns out that those who tend to work more from home regularly are people who have adequate facilities to be able to work from home, who enjoy working from home, who have suitable space at home where they work and who are more productive at home than in the office. While the rest are those who are not accustomed to working from home, who can collaborate more easily with people from other organizations, who yearn for social interaction from work and who can collaborate easily with colleagues.

From the description above, nobody has a crystal ball to predict the future. As we all know nobody predicts Pandemic Covid-18 was coming as well before. But, at least when we examine the pandemic in the light of basic consumer drives, perhaps we can adapt to The New Normal by stepping on the Gratification, giving satisfaction to those who feel they have suffered a great loss when Pandemic and those who actually get a lot positive things from Pandemic, Agency, there are agents / institutions that regulate the availability of products, do not let anyone hoard sanitizers and others and eventually we will lose control of our lives, convincing them that they still have institutions / agencies so we able to make our own choices and the last one of course is Stability. (www.Forbes.com).

5. Conclusion

Consumer behavior changes when a pandemic occurs, for those who have felt comfortable with the new habits formed during the Pandemic because of the perceived usefulness and have a tendency to continue this new habit during the post pandemic or new Normal. During the Pandemic people have a habit of only buying or consuming goods that are needed that are not desirable such as complementary goods or goods to channel hobbies, choose local products or brands that have been identified to get certainty of availability, ease and guaranteed quality, and using digital technology facilities in its shopping activities. Efficiency and effectiveness obtained when connected with colleagues or distant families when Pandemic tends to be continued because it has many positive values, such as lower costs, shorter time, frequency can be more frequent, easier ways, safer, more convenient and minimizes risk. Working from home is felt to be more productive for a group of people because of more time, lower costs, wider reach, even the office does not need to provide a large space to accommodate employees to work will likely be a consideration to be maintained or continued in the Post Pandemic era.

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Islamic Tourism in Southeast Asia: The Concept and its Implementation

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ABSTRACT

Tourism has now become an important source of revenue for many countries in the world. The spillover from this booming and lucrative industry impacts positively the other sectors of the national economy in those countries. This situation is not only true in the advanced countries of the world, but also in the Muslim world. In this present study on Islamic tourism the researchers intend to investigate the definition, destination, purpose and ethical issues related to Islamic tourism. Very particularly, the study will focus on the situation in three of the Muslim countries situated in the region of Southeast Asia; namely Malaysia, Indonesia and Brunei. Driven by the passion to study on Islamic tourism, the researchers are interested to know the guiding principles set in these countries in contrast to others in the region. Apart from the crux of the investigation, on the peripheral, this study will also look into the topic of tourism from the Islamic ethical dimension, mainly referring to the Qur'an and Sunnah. As a qualitative study, the researchers will employ the library research approach in collecting the pertinent data related to the study. By using the textual-analysis method they will scrutinize data collected from online and print materials. It is hoped that this modest research can be a contribution in advancing Islamic tourism in the Malay Archipelago and elsewhere in the world. From this study, it could be discovered initially that Islamic tourism is a huge opportunity for the Muslims in the region to develop further to tap the industry as well as to introduce the region with Muslim majority to the world. Enormous efforts have been done to promote and to develop the religious tourism in the region along with the conventional tourism generally and it had achieved significant results by attaining the top place in Islamic tourism industry. However a lot of works should be done such as the lack of standard facilities and promotions as well as the regional coordination in order to bring the religious industry to another level. It is necessary to expand the niche of Islamic tourism which is still below 20 percent out the conventional tourism industry largely.

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1. Introduction

Though Islamic tourism is relatively a newly coined term, travelling for various different reason has been a normal practice in the Muslim world ever since the advent of Islam. Compared to ancient times, in recent times with the introduction of modern means of transportation, we now

witness a sharp increase in the number of Muslims travelling not only within the Muslim world but to other parts of the world, particularly to Europe and America and other parts of the world. Besides that, globalization, economic growth, budget aircraft, online ticketing, easy information on the enchanting and scenic places posted on the internet and social media has exponentially promoted tourism in general and Islamic tourism in particular. Tourism has now become a booming industry globally.

Islamic tourism in Southeast Asia had developed rapidly in this decades after restless efforts and continuous improvement as well as extensive promotion. This type of industry is considered new industry in the region and in the Muslim world in general. Despite of that the industry of religious tourism had reached tremendous achievement by getting top spot in Islamic tourism industry in recent years. However the religious tourism industry generally still could not compete the conventional one yet as its share is less than 20 percent of the whole industry in the region and in the world as well. This is due to various factors that need to be improved further by all service providers as well as the authorities to attract more tourist coming in the region. In this article we try to discuss the concept of Islamic tourism, Islamic tourism industry in Southeast Asia and its standard and implementation.

2. Definition and the Origin of Islamic Tourism

Unlike other communities, Muslims are encouraged by the Qur'an and Sunnah to travel. Very particularly, the Qur'an mentions travelling in many different places for several reasons. The word tourism in modern Arabic is known as *Al-Siyāhah*. Although relative a new term, it explains the meaning of one traveling or sets on a journey similar to *Safar* or *Sayr*, but it is used more specifically to describe traveling for recreational purpose or for pleasure (*al-Ma'ĒnĒ, 2019*).

Al-Siyahah is slightly different when compared to *Safar* or *Sair*. The latter covers a wide range of meanings like; a journey undertaken be it for the purpose of seeking knowledge, business, visit, religious or any other purpose¹. Some 'ulama (scholars) in area of Islamic jurisprudence (*fiqh*) even specified that a journey should be classified as *Safar* when it exceeds more than 80 km in distance. (*al-Ma'ĒnĒ, 2019*).

In the holy Qur'an one finds that terms like *Safar* and *Sayr* which refer to travel are repeatedly mentioned in different contexts and undertaken for different reasons. What follows below here are a few verses of the Qur'an that refer to the different words relate to travelling and the benefit of travels undertaken for a good purpose:

The Qur'an uses words such as *sĒra- yasĒru- sayr, sĒfara- yusĒfiru- safar, or rahala- yarhalu, rihlah* that denote traveling or journey;

سار-يسير-سير , سافر- يسافر- سفر , رحل-يرحل -رحلة

From the Qur'anic perspective these words pretty much carry similar meanings to one another. The word *sĒra* is probably the most general term used which means going, travelling, departing, moving away, following etc. On the other hand, words like *sĒra* or *yasĒru* or its derivation such as *sĒrĒ* are mentioned 27 times that connote traveling or going out or sightseeing. At times, the Qur'an also uses them in other forms like ' *wa sĒrĒ*' which means do travel or '*qul sĒrĒ*' which 'means say to them to travel', or in the question form such *أفلم يسيروا* which means 'why don't they travel'. The latter form is mentioned more than 10 times in the Qur'an compared to the other form of the word. This also means that Allah stresses the importance of traveling for a certain purpose².

Based on the contextual meaning of the above *ĒyĒt*(verse), one can deduce the understanding that the philosophical reason as to why one is encouraged to travel in the Qur'an is none other than to

¹ ibid

² M. FuĒd 'Abd al-BĒqĒ (1364 AH), *al-Mufahras li alfĒD al-Qur'Ēn*, Cairo, DĒr al-×adĒth, p.373

ponder and reflect on the sociological and historical phenomena of the bygone and vanished people and their civilizations. At other times the phrase “why don’t they travel on earth” in the Qur’an emphasizes the traveler to observe and reflect on the cosmological and sociological phenomena.

أَفَلَمْ يَسِيرُوا فِي الْأَرْضِ فَتَكُونُ لَهُمْ قُلُوبٌ يَعْقِلُونَ بِهَا أَوْ آذَانٌ يَسْمَعُونَ بِهَا فَإِنَّهَا لَا تَعْمَى الْأَبْصَارُ وَلَكِنْ تَعْمَى الْقُلُوبُ الَّتِي فِي الصُّدُورِ (سورة الحج 46)

"

Have they not travelled in the land, and have they hearts wherewith to feel and ears wherewith to hear? For indeed it is not the eyes that grow blind, but it is the hearts, which are within the bosoms, that grow blind". (46)

قُلْ سِيرُوا فِي الْأَرْضِ فَانظُرُوا كَيْفَ بَدَأَ الْخَلْقَ ثُمَّ اللَّهُ يُنشِئُ النَّشْأَةَ الْآخِرَةَ إِنَّ اللَّهَ عَلَىٰ كُلِّ شَيْءٍ قَدِيرٌ (٢٠)

Say (O Muhammad): Travel in the land and see how He originated creation, then Allah bringeth forth the later growth. Lo! Allah is Able to do all things. (QS. Al Ankaboot:20)

In most instances, the Qur’an encourages the Muslims to go on a journey or travel to witness the glory and majesty of God in the world of creations. Through such travels the good and pious Muslims are expected to learn and contemplate on the bounties given by God to humanity. Besides the recommended travels, the Qur’an has also made traveling an obligatory (*fardhu ain*) one for those who have the capacity to go for *Haj* (pilgrimage to Mecca). Such a travel is only an obligatory travel undertaken by an individual once in his or her life. *Haj* literally means “the intended travel”. Below here is the reference to *Haj* in the Qur’an: It is mentioned in the Qur’an:

فِيهِ آيَاتٌ بَيِّنَاتٌ مَّقَامُ إِبْرَاهِيمَ وَمَنْ دَخَلَهُ كَانَ آمِنًا وَلِلَّهِ عَلَى النَّاسِ حُجُّ الْبَيْتِ مَنِ اسْتَطَاعَ إِلَيْهِ سَبِيلًا وَمَنْ كَفَرَ فَإِنَّ اللَّهَ غَنِيٌّ عَنِ الْعَالَمِينَ (٩٧)

Wherein are plain memorials (of Allah's guidance); the place where Abraham stood up to pray; and whosoever entereth it is safe. And pilgrimage to the House is a duty unto Allah for mankind, for him who can find a way thither. As for him who disbelieveth, (let him know that) lo! Allah is Independent of (all) creatures. (Ali ‘Imron:97)

From the above discussion it can be said that the term travel/*safar* or journey in Islam is not only for recreational purpose but it could also be for social or religious duties depending on the aim or purpose of that activity. In contrast to Islamic ideas, tourism in the secular and more conventional contexts is more restricted in its meaning merely referring to recreational activity. Nevertheless, Islam does not forbid tourism that focuses on recreational activity so long it is done in line with a good purpose and adherent to the ethical values of Islam.

Although many Muslim scholars have given their definitions on Islamic tourism, but all agreed on one principle that it should not go against norms and values set by Islam.³ While Hassan on the other hand, stress that Islamic tourism is based on acceptable moral values, ethics and divine principles (2004)⁴. Hassan (2007) simplified that Islamic tourism is a tourism which observes the Islamic values.

INHART IIUM’s definition on Islamic tourism states that the Arabic term called *Siyaahah* which is derived from the Arabic word (س ي ح) means travelling or journey in the world as mentioned in the Qur’an, “Go you, then for four months...” (QS.At-Taubah, 9:2). Moreover, INHART explains that; terminologically, *Siyaahah* in Islam means the effort of Muslim travelers to face the challenges and to uphold the moral values of Islam and to be an obedient servant to God. (Inhart, IIUM,2019).

³ Shakiry A.S. (2006), The academy of Islamic Tourism project. 25 Sept 2103.

⁴ Hassan A. R. (2004). Islamic tourism: The concept and the reality. Islamic Tourism, 14, 2.

While the Malaysian authority in giving its definition states Islamic tourism is a kind of interest and activity of traveling to explore the heritage of Islam, history, art and culture and to experience the Islamic way of life in conformity with Islamic belief. (ITC,2009). OIC on its part defined tourism as to Muslim travelers to visit Islamic destinations and for religious purpose. (Henderson, 2010). Travelling per se in the Islamic context is deeply rooted in aspects like: history, social, religious, economic and education.

The origin of travelling is recommended if not compulsory for the Muslims like journey for *hajj* and *umrah* and it can be divided into the following types:

1. *Hajj* or *Umrah* (Pilgrimage)
2. Business
3. Education & Spiritual Enlightenment
4. Recreation
5. War or migration (*Hijrah*)

In Islam, before one undertakes a journey or a travel trip, he or she has to look into the priorities and importance of that journey. Muslim scholars have classified travels into; starting from the most important one to the less important one. In other words, such travels can be obligatory, recommended, permissible or prohibited⁵. The one that falls under the obligatory travel will be *×ajj* (pilgrimage to Mecca). This travel is a dream of every Muslims to go to Mecca to perform the pilgrimage. Philosophically, *×ajj* for Muslims is more than a ritual. For many, it is a long journey undertaken to fulfill the last pillar of Islam. Muslims congregate during the *×ajj* season to showcase their universal brotherhood. They not only meet but exchange ideas with other Muslims on their state of affair in their own homeland. The history of *×ajj* performance goes back as early as during the time to Prophet Ibrahim. *×ajj* as a form of *ibÉdah* (ritual) was later reintroduced in 7th century A.D. during the time of Prophet Muhammad SAW. *×ajj* as a spiritual journey is a dream of every Muslim to undertake at least once a lifetime. *×ajj* is the largest Muslim gathering that takes place every year. Close to three million Muslims gather during the annual *×ajj* gathering (Amna Puri,2018). This number is small compared to the long waiting list of the Muslims who desire to perform *×ajj* every year. Due to space and logistic limitations during the *×ajj* season, the Saudi government has adopted a quota system for every country i.e. 1 per 1000 people (NST,2019).

Apart from the obligatory journey of pilgrimage, Muslims are also recommended to do '*Umrah* (a shorter version *hajj*) according to their economic capacity. This act of *ibadah* has attracted millions of Muslims to visit the cities of Mecca and Medina throughout the years especially those who don't get the chance to perform Haj and those who wish to do extra worship⁶.

Another type of journey which is also recommended by Islam is the visit to the *Aqsha* Mosque in Jerusalem. During one occasion, the Prophet Muhammad spoke the importance of visiting *Al-Aqsa* Mosque by saying: Narrated Abu Huraira: The Prophet said, "Do not set out on a journey except for three Mosques i.e. *Al-masjid-Al-Haram*, the Mosque of Allah's Apostle, and the Mosque of *Al-Aqsa*, (Mosque of Jerusalem)." (Al Bukhari: Book #21, Hadith #281)

In the Qur'an, Muslims read that Prophet Muhammad SAW was taken on a spiritual journey guided by angels. This famous story of the Prophet known as the "Night Journey" is mentioned in the opening chapter of *Surah 17 (al-Isra)*; '*Glory to (Allah) Who did take His servant for a Journey*

⁵ The permissible journey is the journey which is not recommended or prohibited in Islam such as travelling for recreational purpose or job. While the prohibited one is a journey that could inflict a harm rather than benefiting the person such as traveling for evil purpose.

⁶ According to Saudi government the number of small pilgrims (*umrah*) is around 8 million a year and nowadays they want to open all cities in Saudi Arabia for tourism and not restricted to 3 cities only for visitors. It is expected to draw more tourists to visit Saudi Arabia up to 30 millions by 2030.

by night from the Sacred Mosque to the farthest Mosque, whose precincts We did bless,- in order that We might show him some of Our Signs: for He is the One Who heareth and seeth (all things)'.

In the first verse itself, we are told as to the reason why God invited him. The reason was none other than to show God's signs and wonders to him. Some scholars also mentioned that the journey can also be interpreted as a way God wanted to console his grieving heart over the death of AbĒ ŪĒlib (his uncle) and Khadijah (his beloved wife). In the *SĒrah* (biography of the Prophet), one reads that the losing of these two personalities who were among the great supporters of the Prophet in a single year was marked as the 'Year of Grief'. It was during the night journey, the Prophet was educated by God Almighty on the many Islamic eschatological events that will bound to happen at the end of time and during the resurrection.

However with the current condition of the third mosque *Al AqĒa* which is under the occupation of Israel, the majority of Muslims are deprived visitation except for a small number of people. Other than these three mosques, some in the Muslim World interested to pay a visit to religious sites or Islamic shrines in different countries especially the sites which have historical significance in Islam and its heritage. Among Muslim pilgrims who go on *Haj* and *Umrah*, there are some who would like to visit mosques and historical sites around Madinah, such *Quba* and *Qiblataian* mosques, the graves of martyrs of *Uhud*, those companions of the Prophet at *Baqi'* graveyard etc. At times, Muslims interested in Islamic history and heritage prefer to extend their travel beyond Mecca and Madinah by visiting countries like Egypt, Syria, Iraq, Jordan, Turkey, etc.

As a place of origin, countries in the Middle East have a lot of historical and religious heritage starting from the Judeo-Christian era to the advent of Islam as God's final revelation. Countries like Egypt, Jerusalem, Jordan, and Turkey are some of the countries in the Middle East that receive an influx of international visitors yearly from all over the world. These countries have become so popular with that narrated the stories as a place of the birth or death of earlier prophets who came before Muhammad SAW. A travel to historical sites is expected to broaden up the travelers' horizon of thinking when they witness the evidence for themselves. Such an experience is very different many times than looking at pictures or watching documentaries on electronic media. As such, during such travel, the sites mainly visited by tourists are those that belong to historical and archeological sites of a particular country they are visiting. Learning from bygone ancient civilizations and their people is a thing mentioned in the Qur'an. The famous George Santayana also once said "Those who fail to read from history are doomed to fail". The great Muslim traveler Ibn Battuta who travelled around the world during his time also had a quote on traveling that states "Traveling – it leaves you speechless, then turns you into a storyteller." In modern times, there is a quote that says, "Never say my home is my world, but say the world is my home".⁷

Contrary to the Islamic idealism, at the moment, due to political or some other reasons, Muslims in many parts of the world, especially those from the Middle East are feeling discouraged to travel for some reasons. Among the reasons, that prevent them from travelling are; Islamophobia, terrorism, war, sectarian violence and racism.

In summary, the Qur'an and Sunnah explain that traveling can be an activity that is necessary, if not permissible for a Muslim be it for religious or recreational purposes. It depends on the intention, types as well as the purpose of the journey and it is bound with ethical values and Islamic norms. This becomes one of the core issues of Islamic tourism that will be dealt in this paper.

3. Observance of Ethical Values in Islamic Travel and Tourism

Islam as a complete guidance for mankind has set some guiding principles that need to be observed under all circumstances when one is traveling. The same is applicable for those involved in tourism

⁷ Mohd Abbas Abdul Razak in SlideShare (Slide No:9) <https://www.slideshare.net/maarji/my-quotes-58836218>. Retrieved on 30th August 2019

or countries that promote tourism for economic purpose. The Islamic guiding principles are what the Muslims have adopted from the Prophet SAW and early pious Muslim scholars. Although the term Islamic tourism was not in use back then, travelling was something undertaken by Muslims for a variety of reasons. In Islam, traveling can be considered as a form of worship if it is done with a good intention and carried out in line with the ethical values of Islam. The ethical values in Islam are not measured by reason only but by the revelation of God. All actions of a Muslim in Islam are categorized into five: obligatory, recommended, permissible, reprehended or prohibited. In Islamic laws it deals with all human activities not as the Western believes including food, drinks whether it is permitted or not to consume, dress, entertainment which is allowed or not and the financial transactions as well as human relationship which is legal and illegal. It may vary from one country to other in its implementation. (Hasan Saad,2010).

The following moral values that should be abided by Muslims with regard to travelling are:

3.1 Intention or purpose

The intention or purpose of travelling in Islam is not a less important issue in travelling. This is due to the fact that any action of a Muslim will be meaningful because of its intention. The intention to do something determines the quality of the action itself, if it is good it will be rewardable and otherwise. As it is mentioned by the Prophet SAW⁸

حديث أمير المؤمنين أبي حفص عمر بن الخطاب قال: سمعت رسول الله ﷺ يقول: إنما الأعمال بالنيات، وإنما لكل امرئ ما نوى، فمن كانت هجرته إلى الله ورسوله، فهجرته إلى الله ورسوله، ومن كانت هجرته لدنيا يصيبها أو امرأة ينكحها، فهجرته إلى ما هاجر إليه.

Abu Hafs Umar ibn al Khattab said: “ I heard the messenger of God says:’ the rewards of any action depends on the intention and everyone will get his rewards according to his intention. Whoever migrates for the pleasure of Allah and his messenger, his action will be counted for that and whoever migrates for worldly benefit or for women his migration will be counted for what he intended to”. (reported by al Bukhari and Muslim).

For that reason, a traveler should have a good intention for his journey and it will be regarded as a rewardable action for him or her. The intention is important for any action as it will affect the quality of that action. If it is good, it will bring good outcome and vice versa. That is why a Muslim should also decide his intention for travelling, be it for social reason, economic, or even just for relaxation (Inhart 2019).

3.2 Food and Beverages

Food and beverages are among the important issue for Muslims be it in his home or outside. The main concern among Muslims when they travel is to make sure that they get *halal* food wherever they are. This is what normally the Muslims think before they travel to any place or country especially when they are visiting a non-Muslim country. They have to plan and prepare for themselves when *Halal* food is not available in the countries they visit. This situation will be different when they are visiting any Muslim majority country, where finding *Halal* food is not a major issue. Conversely, for non-Muslims finding food is not a big problem as they don’t have dietary laws that need to be followed. Like Muslims, orthodox Jews also strictly follow dietary laws mentioned in their scripture. While Muslims go for *Halal* food, for the Jews it is ‘*Kosher*’ food. Simply put, for the Muslims religion plays an important part in their decision making when it comes to travelling. (Arasteh & Eilami, 2011; Essoo & Dibb, 2004). Muslims normally don’t travel to places where *Halal* food is not available, unless under desperate situation or there is an urgency or emergency. (Battour et al., 2011).

Hence, it is necessary to know the Muslims’ character in order to fulfill their needs and to attract them to visit a certain country or place before any other consideration. However, many non-Muslim countries have realized this issue and they provide the Muslims with food stalls/restaurant in order

⁸ Reported by imam al Bukhari, book of revelation 1/6 no.1

to attract them. It could be done by either providing *Halal* products for the Muslims or to provide facilities for the Muslims to open stalls/restaurant that serve the *Halal* food at the tourist destination. Moreover, nowadays most nations have adopted *Halal* food certifications to ensure *Halal* food for the Muslims (Mukhtar & Butt, 2012). At the moment, many non-Muslim countries have realized the issue on *Halal* food and the Muslims need for such foods in order to allure the Muslim tourists into their countries (Henderson, 2003).

3.3 Facilities and Accommodation

Muslim tourists have different needs of facilities due to the Islamic laws and the duty of worship in their daily life. This includes clean facilities according to Islam which are free from the 'unclean' place and utilities as well as the place of worship. The clean facilities mean to be free from the non-*Halal* things either food or drinks or the utilities affected by the non-*Halal* things such as alcohol or pork ingredients. While for worship the Muslims have to pray five times a day that they cannot postpone or skip. As such, Muslims need a clean space for worship whether at home or while travelling. However, this facility doesn't necessarily mean spacious place for worship but at least enough place for performing prayer and its facilities such as prayer mat as well as the direction of the *Ka'bah* indicated at the place of worship. Usually, the Muslims have to think of all these necessities when they go to non-Muslim countries. If such facilities are available, they can entice the Muslims to visit the country or place. For this purpose, it is necessary for the tourism industry to know these needs of the Muslims so that they can provide at least the minimum facilities. Since these needs are crucial for the Muslims therefore it must be taken seriously by the tourism providers be it in the Muslim countries or in the non-Muslim ones (Battour et al., 2013).

3.4 Entertainment

One can observe that tourism is closely associated with amusement and entertainment. But in Islam, tourism serves more than leisure and amusement. Along with the objective of Islam itself that is to serve for the benefit of man, entertainment in Islam has its own principles and limits. Islam preaches that it is permissible for man to enjoy the worldly pleasure in a *Halal* way and avoid all that are harmful to the existence of the individual and the society. The permissible and the unlawful things in the entertainment industry should be in line with the moral principles preached in Islam. It is permissible when it doesn't violate the laws of Islam such as light music, dance, or singing which doesn't promote indecency, moral corruption or permissiveness. Islam bans the type of entertainment that encourages illicit sex, drugs, indecencies as well as gambling.

The *Shari'a* (the Islamic laws) is meant for the benefit of man. Hence, all roads leading to harm human interest is considered wrong and should be blocked. It is based on the principle of *درء المفاسد* مقدم على جلب المصالح or it means to block the harms is more important than to get its benefits (al-Zuhaili, 2006).

3.5 Social or Educational Activities

Tourism is not only about individual activity and hobby, but it can be more than that. Perhaps it can be an activity meant for family bonding, social interaction and educational. These types of tourism are more popular nowadays that bring family members together or even to organize a trip with neighbors, school, team, or colleagues, co-workers, mosque organization, etc. This type of tourism is getting popular in the recent decades with different purpose ranging from learning purpose, comparative study, strengthening social bond, brotherhood, or even just for shopping. When compared to the West, these types of tourism are a thriving business in many parts of Asia. Experts in tourism attribute this latest development to the booming economy in many Asian countries.

This trend of social activity has different nature of tourism which is more to educational visit to school, university, museum, zoo, historical sites, national parks, eco-tourism, etc. which aims at introducing them to a learning opportunity. For the Muslims, especially mosque tourism has become a trending site to visit in Malaysia and South East Asia in general due to its historical value, spiritual experience and aesthetic beauty.

In Malaysia, mosque tourism is getting popular in the country by taking tourist who are Muslims and non-Muslims. Tourists are normally taken to visit mosques like Masjid Negara, Wilayah Mosque, Raya Mosque, Iron Mosque, in Kuala Lumpur and Putra Jaya. Besides the mosque in the capital city, other mosques in Penang, Melaka, Kedah and Perak are also visited by tourists. This situation has been used by the local Islamic NGOs to promote Islam by giving them information on mosque and its philosophy, plus some information on Islam, especially to non-Muslim tourists.⁹ In Indonesia however, this type of tourism is more popular among the local tourists to visit historical mosques which are attached to the early propagators of Islam, who are well-known as ‘Wali Songo’ or ‘The Seven Saints’ in the Island of Java. This trend of tourism however has not got its due attention from the government agencies or from the industry in terms of its exposure, promotion, accommodation, or holding cultural events related to educational and religious festivals.

3.6 Gender Segregation and Women Travelers

Another issue of the Muslim tourists is the gender segregation. This is because man and woman have their limit to mingle especially between non-relative and non-*Mahram*. It directly affects the way of travelling for the Muslims where they could not travel together for any reason. As a consequence, the facilities for man and women should be separated as much as possible. This issue has an impact for the tourism industry to provide the facilities and the service for both genders. Among the issues faced in tourism is how the hotel industry could put a control on the non-married couple to stay together in the room (Henderson, 2010). This issue perhaps could affect the rate of occupancy in the hotel, but this rule is more relevant for the Muslims rather than the non-Muslims. This is because coupling is prohibited in Islam unless they are married. However, this issue has caused some problems in its implementation in the hotel industry due to the reluctance of the hoteliers as this could affect the coming of the tourists to their hotels. Furthermore, in Islam a woman could not travel alone unless there is an emergence to do so. A woman is allowed to travel with her family or relative or in a group to make sure her safety and security. In some Muslim countries, especially in the gulf countries and Pakistan, this rule is strictly practiced compared to other Muslim countries in South East Asia or Africa unless it is for a noble and necessary purpose such as studying abroad, seeking medical treatment, etc.

3.7 ÓdÉb (Morals) Observed during Travelling

Another issue which is not less important to the Muslims is the ethical issue related to traveling. Traveling in Islam is not only about worldly activity which is free from any ethical values, but it has its ethics and norms related to it. It is due to the comprehensiveness of Islam as guidance for human life and the role model of it is the Prophet saw who guided Muslims in all aspects of life. This ethics are meant to get the blessing of God in all activities of life including in traveling. The following is a short summary on ethics that need to observe during travel and tour:

a. Decency

It is necessary for a Muslim traveler to observe decency in his/her action as well as in dress whenever he or she has gone out of home or with other people (non-*Mahram*). The traveler is required to close his/her body as required by Islam and to make sure it is not exposed to others in all condition especially when he or she is travelling as mentioned in the Qur’an (QS. Al- Nur;31). This requirement should be given due attention by the tourism industry to provide the Muslim with required facilities such as bathroom, toilet, and swimming pool (if possible) or other facilities which are necessary to avoid indecency and obscenity.

b. Du’a (Supplication) during the Journey

Traveling is a kind of adventure that man would not know what will happen in the journey and only God knows and to Him man will ask for help. Although travelling is not very hard nowadays, thanks for the transportation and good roads, however man would not know what will happen to

⁹ The writer was involved in voluntary work to be mosque guide in some mosques in Kuala Lumpur and Putrajaya with the Islamic Outreach, ABIM.

him throughout his journey. For that reason, man is required to seek God's blessings protection from any harm or calamity. In this regard, Prophet Muhammad has taught some *Dua'* one can recite before leaving one's place of domicile or when one starts to ride his camel/horse those days and vehicle of all kinds in modern context. One is encouraged to recite a *Dua'* in gratitude to God, even after one arrives safely at the destination. Below here is an example of a *Dua'*¹⁰ before embarking on a journey:

اللَّهُ أَكْبَرُ، اللَّهُ أَكْبَرُ، اللَّهُ أَكْبَرُ سُبْحَانَ الَّذِي سَخَّرَ لَنَا هَذَا وَمَا كُنَّا لَهُ مُقْرِنِينَ وَإِنَّا إِلَى رَبِّنَا لَمُنْقَلِبُونَ، اللَّهُمَّ إِنَّا نَسْأَلُكَ فِي سَفَرِنَا هَذَا الْبِرَّ وَالْتِقَاؤَى، وَمِنَ الْعَمَلِ مَا تَرْضَى، اللَّهُمَّ هَوِّنْ عَلَيْنَا سَفَرَنَا هَذَا وَاطْوِعْنَا بَعْدَهُ، اللَّهُمَّ أَنْتَ الصَّاحِبُ فِي السَّفَرِ، وَالْخَلِيفَةُ فِي الْأَهْلِ، اللَّهُمَّ إِنِّي أَعُوذُ بِكَ مِنْ وَعَثَاءِ السَّفَرِ، وَكَآبَةِ الْمُنْتَظَرِ وَسُوءِ الْمُنْقَلَبِ فِي الْمَالِ وَالْأَهْلِ + أَيُّوْنَ تَأْتِيوْنَ عَابِدُوْنَ لِرَبِّنَا حَامِدُوْنَ

(Glory be to the One Who has placed this (transport) at our service and we ourselves would not have been capable of that, and to our Lord is our final destiny. O Allah, we ask You for righteousness and piety in this journey of ours, and we ask You for deeds which please You. O Allah, facilitate our journey and let us cover its distance quickly. O Allah, You are the Companion on the journey and the Successor (the One Who guards them in a person's absence) over the family. O Allah, I seek refuge with You from the difficulties of travel, from having a change of heart and from being in a bad predicament, and I seek refuge with You from an ill-fated outcome with regard to wealth and family)."

c. To Praise God and be Thankful for His Bounties

It is recommended for a Muslim traveler to always remember God during his journey and to praise Him for his blessing. Whenever he sees the beauty in God's creation, he should praise Him. For the bad things he comes across he should ask God to avert him from what he sees in people and objects. This is because the traveler will see a lot of new things in his journey either good or bad. Praising God for the good sceneries and asking God's protection from evil is the way practice shown to us by the Prophet of Islam. Muslims have been asked to follow the ways of the Prophet in many parts of the Qur'an, one such example is in *Surah Ali Imran* 191. The example can be seen in the verse below:

"Indeed, in the creation of the heavens and the earth and the alternation of the night and the day are signs for those of understanding. Who remember Allah while standing or sitting or [lying] on their sides and give thought to the creation of the heavens and the earth, [saying], "Our Lord, You did not create this aimlessly; exalted are You [above such a thing]; then protect us from the punishment of the Fire". (*Ali Imran*: 191-193)

4. Islamic Tourism in South East Asia

Islamic tourism which had started in 80th where the tourism industry developed rapidly and it became the main source of income for almost all countries, developed and the developing countries as well. It is along with the progress of the economic and infrastructures facilities in the developing countries, especially in South East Asia with its worldwide promotion on tourism. Based on UNWTO World Tourism Barometer, the revenue from international traveler reached US\$1.075 billion in 2011 and increased by 4% in 2012 and the growth of the world tourism is estimated at 10.9% in 2014 (Lee & Chang, 2008). The figure of travelers across the world to reach 1602 million in 2020 and the spending is estimated to reach US \$200 billion (Lee and Chang, 2008). While the growth rate of Muslim tourists is about 13.36% with estimate expenditure is about \$192 billion by 2020. Malaysia, Egypt, Turkey, UAE, Thailand, Singapore, China and Indonesia are among the popular destination for Muslim tourists. It is estimated that the region will attract over 18 million Muslim arrivals by 2020, which is nearly 15 percent of all tourist arrivals to the 10-member bloc (Jason Thomas, 2019).

¹⁰ The du'a is based on hadith narrated by Muslim, *Riyadh al-Ḍalīl*, chapter *ÓdÉb fi al-Safar*, book 8, no 17.

In South East Asia, the trend of the Muslims visiting places of interest is also increasing annually. The most popular places to visit are the historical mosques, shrines of religious scholars (*Ulama*) as well as the Islamic heritage and natural sites. Among the places in Malaysia, the National Mosque, Raya Mosque, Iron Mosque in Kuala Lumpur, and the historical mosques in other cities. In Indonesia, the most popular places visited by the Muslims are the mosques built or attached to the 'Seven Saints' (*Wali Songo*) and other historical or beautiful mosques in the country. This trend is not different in Brunei and Singapore, despite the other popular vocational places that came to exist later.

The booming tourism industry in the last few decades in the world should be attributed to faster and cheaper transportation as well as the development of accommodation has as a result in the increase of tourists in many countries in general, particularly in the South East Asia. This trend has motivated the developing countries in South East Asia to develop the tourism industry and to attract the tourists from the West as well as from the Muslim countries to visit this region. South East Asia is regarded as the fastest growing nations in building tourism industry and with the growth of two digits annually in average. This situation is contributed by the rapid development of the facilities and accommodation in the region as well as the stable political situation in addition to relatively cheap living cost and multiracial society.

Despite most of the tourists coming to this region are from Western countries and Eastern countries, the number of Muslim tourists had increased significantly in the last few decades. This fact can be seen in an increase of 20 percent of Muslim tourists from the Middle East and Indian Subcontinent coming to this region. This trend took place not without reason, but it is due to the hostility of the Western nations towards the Muslims after 9/11 terror attacks in the US. It can be a blessing in disguise for Muslim countries with the changing of the Muslims travel destination to other countries especially to this region (The Sun Daily, 2019). The GMTI index estimates that there will be 160 million Muslim travelers by 2020. This figure is expected to increase by 230 million by 2026. (The Star (24/8/2019). According to the Malaysian Prime Minister, in launching visit Malaysia 2020, Tun Mahathir optimistically expects the arrival of 30 million tourists in 2020 (Mazwin Nik, 2018). Mohamaddin (ex-Tourism minister) added that "non-Muslim countries" such as Japan, South Korea and Taiwan have also started to tap into the Muslim traveler market (Mazwin Nik, 2018)).

By the arrival of more Muslims tourists to this region it has challenged the Muslims in this region to take part in the tourism and service industries be it government institution or the private and individual entrepreneurs. As we know the hotel and accommodation facilities were dominated by the non-Muslims since early times, a 'negative' image tarnishes the industry due to non-Islamic elements in it such as alcohol, illicit sex, drug, etc. Such an image has made the Muslims so reluctant to embark on any business in the tourist industry. However, with more awareness of the Muslims about the industry and its benefits socially, psychologically and economically the Muslims climb onto the bandwagon of the industry. This trend however has its own issues with regard to the facilities, foods, services as well as the standard and the certification and the rules to be adhered by the players in the industry. Governments institutions had its own role to attract the Muslim and non-Muslim tourists to visit countries in the region since 90th by developing public facilities and incentives for the players of the industry as well as an easy entry into the country. Malaysia as an example managed to attract more than 20 million tourists annually by promoting the country using different strategies. Followed by Indonesia and Brunei apart from other Asean countries such as Singapore, Thailand, and Vietnam etc. However, the three Muslim countries in the region have to face different issues though Muslims are the majority living there.

5. The Concept of Islamic Tourism

The concept of Islamic tourism emerged with the booming tourist industry and the arrival of more Muslims from the Arab world, sub-continent countries as well as from other Asean countries. Apart from that, it is attributed to the participation of the more Muslims in the industry. Among the main

issues are the adherence to the Islamic laws, the absence of non Halal food and beverages, the facilities that accommodate the Muslims need and the segregation of different gender in some aspects, etc.

6. The Implementation of the Islamic Tourism in South East Asia

The trend of travelling and vacation started decades ago when the means of transportation and information are getting faster and easier along with the economic progress of the world and the Muslim nation. Nowadays travelling has become a lucrative industry that can produce great income for individuals as well as for the nation. It has created millions of jobs whether directly or indirectly. Due to this trend and the rapid development in tourism industry and vacation, it is necessary to investigate the issues related to traveling more seriously from the Islamic perspective. There are different terms used in South East Asia that refers to Islamic tourism, such as Islamic tourism, *Sharia* tourism, or even *Halal* tourism. Although they are close to each other but perhaps there are different reasons to use these terms such as sensitivity of the term for non-Muslims or commercial reason or even due to the different understanding of the term that represents its proper meaning. In the three Muslim countries in SEA namely Malaysia, Brunei and Indonesia the use of the term is little bit different. In Malaysia, Islamic tourism is more popular, while *Sharia* tourism is more familiar in Indonesian context, although the two refers to the same meaning. Above these differences the main issue of Islamic tourism is on the characteristics and the standard used in implementing the concept of Islamic tourism in the region. The standard of Islamic tourism in the region might be different from one country to another; however they may share the common values and principles based on the guidance of the Qur'an and Sunnah. In this article we try to compare the standardization used by the authority in this region especially in the above mentioned three countries.

Referring to the Malaysian context, Islamic tourism had been introduced by the Malaysian authority since 90th along with the influx of foreign tourists to the country. Islamic Tourism Centre (ITC) had been established in Malaysia in 2009 under the Ministry of Tourism which was set up in 1985 to cater for the tourism industry which was developing at that time and to find strategies to attract more Muslim tourists to the country (ITC 2009).

As a separate body it focuses more on the issue of the concept of Islamic tourism and its implementation to provide better facilities for the Muslim tourists who visit the country. After sometimes the establishment of the centre along with the big promotion done by the Ministry of Tourism, Malaysia managed to attract more Muslim tourists within few years and the growth rate is very high along with other Muslim countries such as Morocco, Egypt and Turkey (Lina Munirah, 2013).

Based on the definition given by the Islamic Tourism Centre Malaysia, Islamic tourism is a sphere of interest or activity which is related to travel and explore Islamic history, arts, culture and heritage and/or to experience the Islamic way of life, in conformity with the Islamic faith (ITC, 2009).

A lot of effort had been taken by Malaysia to improve the quality of Islamic tourism to meet the standard and to implement the concept of Islam in the tourism industry. Among the efforts that given priority related to Islamic tourism are as follow:

6.1 Halal Food Industry

Malaysia had adopted *Halal* certification since 1983 and the *Halal* standardization is under the name of *Halal* food; production, preparation, handling and storage – general guide (MS 1500:2009). It was developed under the Malaysian Standard Development System, under the wing of the Department of Standardization Malaysia (DSM), Ministry of Science, Technology and innovation (Siti Salwa, 2015). It is supervised by the Islamic Affairs Department (JAKIM) and other related institutions. This institution was established to make sure the food production meets all the *Halal* standard developed by the Department and to ensure the *Halal* requirements are

fulfilled by the players in the food industry. The *Halal* standardization in Malaysia had been applied to all food and beverages as well as all related product of food and beverages under stringent rules to ensure its quality and *Halal* status. Hence each food and drink product must bear a logo of *Halal* approved by the JAKIM authority and it is supervised and monitored directly by that institution (Jakim, 2019). The process had met the international standard of Malaysian Standard (MS 1500:2009) and in the process to meet the international standard in the near future. The products that have been certified include food, restaurant, food stall, hotel, companies, pharmaceutical, households products, drinking water products, slaughtering facilities and logistics (Halal Malaysia;2019). This process is still going on to cover other products that need to be certified due to its nature of containing possible non-*Halal* substance.

6.2 *Sharia* Compliant Hotel

Hotel industry plays an important role to support the process of developing Islamic tourism in Malaysia. Therefore, it is necessary to have certain standard that can be applied to all hotels regardless of the ownership whether it is managed by the Muslims or non-Muslims, local or international players. ITC Malaysia launched recently Muslim Friendly hotel recognition and according to the report Malaysia had received 5.2 million Muslim tourists in 2018 (Joseph Kaos,2019). The move launched by the Ministry of Tourism, Arts and Culture aims at putting the standards or accreditation to hotel industry to meet the required level of *Halal* status and *Sharia* compliant accommodation. He claimed that such accreditation which is to be carried out by the Islamic Tourist Centre (ITC) is the first of its kind in the world (The Star, 2019). This move is meant to set a standard for *Halal* status and accreditation and it is to be followed by others in the future. The accreditation consists of three levels namely, platinum, gold and silver and it is based on the compliance to the standard that has been set by the Centre in collaboration with SIRIM. Interestingly, among the standards to be fulfilled by the hoteliers are the proximity to the mosque and other Islamic attraction, the availability of prayer room and mat, *Kiblah* direction, *Halal* certified restaurant, segregated gym and swimming pool (ITC, 2019). Although there is no complete agreement on the description of *Shari'ah* compliant hotel, the common description of it is outlined as below:

1. Only *Halal* food should be served in the hotel premises and restaurant.
2. Prayer room is provided at least the *Kiblah* direction to be given in the room.
3. Hotel staff to wear proper Islamic dress code.
4. To provide water tap in the toilet and bath room.
5. Prohibition of serving alcohol and indecent entertainment.
6. No unwed couple to stay in the same room
7. No non *Halal* food to be brought by the visitor to the hotel (Zakiah Samori, 2013).

While in Malaysia the *Halal* certified hotel has to meet the following criteria:

Serving the *Halal* food or *Halal* restaurant, having the facilities for performing prayer and having *Kiblah* indicator in each room, not serving non-*Halal* food and alcoholic drinks (Zakiah Samori, 2012). Each hotel should fulfill these criteria in order to be recognized as *Halal* hotel and to get the *Halal* logo which is issued by JAKIM or JAIS. However, for the comprehensive criteria of the *Halal* hotel, according to JAKIM, so far there are no legal guidelines or standard regulations for the hoteliers to follow in order to achieve the *Halal* certification (Yuni Aryanty, 2010).

In promoting to the Muslim tourists, Malaysia had launched the campaign to attract especially those from Arab countries that include the following moves:

- a. Promoting Islamic museum and mosque tourism.
- b. Art and cultural sites and event.
- c. Introducing Muslim and Arab food and event.
- d. Providing Arabic speaking guides and travels, etc.

7. The Implementation in Indonesia and Brunei

In Indonesia, the most common term used is '*Wisata Halal*' which means *Halal* tourism rather than Islamic tourism. As a Muslim majority country, Indonesia has launched the campaign of *Halal* tourism since 90th and it is still in the process of developing the proper standard of Islamic tourism. Indonesia receives about 20 percent of Muslim tourists out of around 15 million tourists every year. This niche of Muslim tourist is still small compared to total number of tourists visiting Indonesia every year and the government is pushing hard to increase the number by having international campaign to attract Muslim tourists, especially from Arab countries. Along with this campaign the government is also trying to develop *Halal* tourism by designing the standards and regulations to be followed by the players in the industry. In this regard, the Ministry is drafting the guidelines of *Halal* tourism that includes destination, marketing, industry and association (Mitra Tarigan, 2019 Jul 27). According to the Ministry of Tourism of Indonesia, the *Halal* certification is necessary in the industry because it will attract more Muslim visitors to the country and at the same time it can improve the quality of service for tourists. He added that Indonesia has a huge potential for *Halal* tourism industry due to its diverse culture and wide natural tourist destination such as Lombok Island that develops to be *Halal* tourist destination.

In the process of drafting the standard and regulations the Minister of Tourism of Indonesia was stressing on the importance of having certification of *Halal* for hotel industry including culinary, hotel, travel agent and spa services (Mitra Tarigan 2019 Jul 27). The standard of certification is also to clarify some misunderstanding among the players in the industry such as in issue of separating the gender for the climbers of Rinjani Mountain, Lombok. However, the issue that created havoc weeks ago had been clarified by the Chief of the Rinjani geopark Sudiyono that the plan to separate the gender had been postponed and not to be implemented soon.

On the other hand, Lombok Island that has been declared as an icon of *Halal* tourism by the Ministry in 2015 managed to attract 1.4 million Muslim tourists in 2017 and the number increased almost 40 % within 2 years. Arif Yahya¹¹ also reiterated that the government is committed to improve the facilities for Muslim tourists by providing the Muslim friendly airports with *Mushalla* (prayer room), with better facilities, *Halal* certified hotel, restaurant at a reasonable rate and more cultural events (Fardah, 2019/5/27). Five destinations had been declared so far as *Halal* destinations by the ministry that includes Aceh, West Sumatera, Riau and Riau Islands, Jakarta and Lombok. According to Global Muslim Travel index (GMTI 2019) Indonesia and Malaysia are positioned at No.1 of the most Muslim friendly destination for Muslim tourists based on four criteria namely; accessibility, communication, environment and service. Indonesia rose to the No.1 position in 2019 after four years of continuous effort done by the government and the industry players to improve the infrastructures and facilities. (Robby Setiawan, 2019 April 16).

According to Crescent the rating is based on the 6 common criteria of *Halal* tourism namely:

1. Pork free food, non-alcohol and its products.
2. Availability of worship facilities\
3. Toilet and water for taking ablution.
4. Special service during Ramadan (breakfast and sahur)
5. Identification of non-Halal food
6. Recreation facilities that separate between male and female.

While according to Global Muslim Travel Index the rating is based on the following standard:

1. Muslim family friendly destination
2. Safety for Muslim tourist

¹¹ Arief Yahya, the Former Minister of Tourism of Indonesia under the first term of Joko Widodo presidency up to 2019.

3. High volume of the Muslim tourists
4. Friendly service and facilities of Muslim tourist
5. Variety of Halal food
6. Easy access and comfortable place of worship
7. Good and friendly airport
8. Option of accommodation facilities
9. Halal awareness and marketing destination
10. communication facilities
11. Accessibility and awareness of the need of Muslim tourist
12. Connectivity of air transportation
13. Ease Visa requirement (GMTI, 2019)

Brunei

Brunei Darussalam as a Muslim country in ASEAN is also struggling to develop its Islamic tourism along with its continued campaign to attract tourists to this tiny country. Brunei as a Muslim country has long history of Islam and rich with Islamic culture and heritage has a lot to offer to the Muslims tourists. As a Muslim majority country, Brunei implemented the Islamic laws since 2014 in different aspects including criminal punishment despite the criticism raised by some countries. In addition to that, its small population that consists of Muslim majority had contributed immensely to the Islamic environment and ambient. This situation has formed more Islamic environment for Islamic tourism in Brunei and contributed to the less effort to offer Islamic tourism compared to other countries.

However the adherence to the *Sharia* law should not be an obstacle to develop the Islamic tourism market in the country. Instead Brunei has reached number 10 of GMTI Top-10 of OIC destinations. Brunei scored 90/100 on GMTI benchmark criteria in term of safety and dining facilities. GMTI provides the Muslims with the scores of halal-friendly standards of more than 100 destinations across the world. The main attraction to Muslims visitors to Brunei includes Omar Ali Saifuddin mosque, Hasan al Bolkiah mosque, Darul Ifta building with its valuable Islamic artifacts, the Royal Mausoleum, Brunei History etc. Brunei Tourism is working closely with the Ministry of Religious Affairs to develop Islamic tourism that includes offering mosque tourism and Islamic gallery. And the main source of Muslim tourists in the country is from Asean countries including Singapore, Malaysia, Thailand, Indonesia and Philippines.

Brunei Tourism Board is also promoting Islamic tourism by providing materials as well as products and tours that would be an interest to the visitors. (Puvanesvari 2019 Nov 18) According to Brunei's Ministry of Primary resources and tourism, Malaysia and Indonesia have consistently been among Brunei's largest tourism markets since 2015. Out of 218,213 tourists arrival in 2015, Malaysian shared 26.6 % and Indonesian shared 23,5 % and this trend seems to an ongoing one. (The Asean Post team, 2019 Feb 15).

8. Conclusion

Based on the discussion above it can be concluded that Islamic tourism conceptually not a new activity in Islam but it has transformed to be more commercial and recreational in nature. However, Islam as a comprehensive way of life has provided the general principles and guidelines on its concept of travel and journey. Tourism is not exempted from the guidelines set by Islam. The guiding principles set by Islam are mainly related to this life or the hereafter. As a new trend of activity and the new type of business and a new form of national revenue, tourism has developed fast in the world and in the Muslim countries as well. This situation challenged the Muslim nations and the Muslim countries to develop its infrastructures and facilities to the new level to provide the best service for tourists in general and the Muslim tourists in particular. The Asean region is dynamic economically and rich with culture and natural tourist destinations is not spared from the trend to attract travelers to visit the region. In order to attract more travelers to the region,

particularly Muslim travelers, some works need to be done in order to fulfill the needs of Muslims travelers be it in service, accommodation, food, etc. It also requires the Muslim countries to develop its infrastructures and accessibility as well as its promotions to other countries especially among the OIC countries to provide them with better services and indirectly it could strengthen the relation and brotherhood among the Muslim *ummah* in general.

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The effectiveness of a rational, emotional, behavioral program in modifying the irrational thoughts related to the pressures of life for forced retirees

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ABSTRACT

Thinking includes cognitive processes implicit or explicit, or an internal mental perception of events or things, or a mental means by which a person deals with facts, things and events through the cognitive processes that are represented in the use of symbols, concepts and words. Thinking and style are its types, it is the outcome of interaction between several changes, such as an individual's past, past experiences, ability to teach, level of education, level of education and social upbringing, cultural and civilizational factors and the influence of the surrounding environment. Work is one of the important factors that affect the life of a pensioner. Without it, the individual suffers from many social and psychological diseases, such as isolation, depression, anxiety, stress and fear. Work is the basis of respect for the individual and the respect of people for him, and the individual achieves many gratifications through his work, and when he loses it, he is exposed to many frustrated situations related to his inaction. Compulsory retirement is the second of the growth crises experienced by the individual after the crisis of adolescence. Compulsory retirement from work has become one of the most important problems facing them. Here, there are many studies that dealt with adaptation to retirement, which emphasized the importance of preparing for the post-retirement phase so that the individual avoids potential psychological disorders and to achieve a sound psychological and social harmony and a smooth transition to the retirement stage. Irrational thoughts come as a result of false cognitive precipitations in forced retirees, resulting in many socio-psychological problems, such as the problem of family relationships and a tendency to depression. Accordingly, the problem of the study was determined in a question: What is the effectiveness of a professional intervention program within the framework of strategies and methods of rational emotional-emotional-behavioral therapy in modifying the irrational thoughts related to the pressures of life for forced retirees?

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1. Introduction

Thinking includes explicit or implicit cognitive processes or an internal mental perception of events or things, or a mental means by which a person deals with facts, objects and events through cognitive processes that are represented in the use of symbols, concepts and words (Baghurat Nur

al-Din, 2014, 18 p.). Thinking and style are its types, it is the outcome of interaction between several changes, such as an individual's past, past experiences, ability to teach, level of culture, level of education and social upbringing, cultural and civilizational factors and the influence of the surrounding environment (Bghorat Nur al-Din, 2014, 67). Work plays an important role in a person's life, regardless of his type, and the nature of the type of work performed by the individual is one of the most important factors that affect the building and formation of a person's personality. Through work, the individual's personality grows and gives him value and importance, the higher the status of the individual who does this work and the greater the personality Acceptance of others (Ahmad Al-Astal, 2014, 70 p.) Work is of great importance in an individual's life, especially if the individual gets a high position in his job.

The importance of work does not stop at securing a person's material needs, but extends to satisfying many psychological and social needs upon which his mental health is based, including a sense of competence, value, security, reassurance, acceptance and love through the individual's perception of people's appreciation for his work and their approval for his production. Work is what makes a person live a life for her. Meaning, in which he feels respect and self-worth, and finds happiness and social status in it (Azza Abdel-Karim, 1994, 20 p). Some philosophies have been based mainly on the subject of work as the main engine in the formation of the structure of society, then the personal construction of the human being, which is what led "Engels and Marx" to say that work is the maker of man. If work is all this value and importance in the development and maturity of the personality of man, then it is we can expect various types of disturbances, whether it is related to the individual's ability to cope with himself or with others in a state of interruption or the individual's inability to work (Ahmed Al-Astal, 2014, 50 p).

Work is one of the important factors that affect the life of a pensioner. Without it, the individual suffers from many social and psychological diseases, such as isolation, depression, anxiety, stress and fear. Work is the basis of respect for the individual and the respect of people for him, and the individual achieves many gratifications through his work, and when he loses it, he is exposed to many frustrated situations related to his suspension from work (Salwa Othman, 2012, 89 p). Retirement is an important turning point in a person's life, and it is the main social indicator of a person's transformation from the stage of reaching middle age to the stage of old age, just as work was the decisive social indicator in the transition of a person to the stage of adulthood, and both work and retirement as indicators of the transformation in growth Man demonstrates the critical importance of social simulation in determining both adulthood and old age, perhaps in a way that far exceeds biological factors (Fouad Abu Hatab, 2008, 581 p).

Retirement is divided into two types: (1) Mandated or compulsory retirement for reaching the retirement age of 60-65 workers or voluntarily voluntarily. One study indicates that 98%: 99% of retirees retire legally, while other studies indicated that 7% retired voluntarily according to their desire (Basma Muhammad, 2010, 27, p) and (2) Compulsory retirement: It is the one in which the individual does not have a choice, as he finds that the prevailing regulations in the organization in which he works set laws and rules whenever they apply to any individual and must be referred to retirement, and usually the referral to the pension is due to reaching the legal retirement age, which is usually The age ranges between (60-65 years) (Ibrahim Muhammad Al-Obaidi, 160 2003). As for voluntary retirement: this type is called by various names, including voluntary, early, and voluntary retirement. It is defined as: the end of the service of the insured and his access to a retirement pension relatively early, in comparison with the legal age of termination of service, that is, the case of retirement that is voluntarily done before the legal age and the insured is in good health condition, and is able to distinguished bid due to his professional administrative experience , And it was named optionally because the decision to retire is up to the individual's desire if he decides to stop the work he is doing, before reaching the compulsory retirement age, i.e. the legal age (Mansour Bin Jahaz, 2008, 100 p).

Compulsory retirement is the second of the growth crises experienced by the individual after the crisis of adolescence. Compulsory retirement from work has become one of the most important problems facing them. Here, there are many studies that dealt with adapting to retirement, which

emphasized the importance of preparing for the post-retirement phase so that the individual avoids potential psychological disorders and to achieve a healthy psychological and social harmony and a smooth transition to the retirement stage (Hussein Ali Fayed, 2001, 80 p.). The stage of compulsory retirement carries with it many elements that affect most aspects of the retired's life, psychological, family and social, all of which represent a great burden, occupying and burdening, above all, his thinking, which is the center of human power. The retired person (the retired person who has completed the age of 60 in the Egyptian Labor Law) loses many of his social roles and loses his job, and for our knowledge of the problems associated with losing work and retirement, it is the belief prevalent among some that retirement is the end, just as retirement means in one way or another the end of the importance of the individual and his role in societal activity, all these aspects associated with old age and retirement may lead to the individual entering into a cycle of social, psychological, health and economic problems that may be reflected in his level of satisfaction with life (Salih Muhammad, 2010, 3-4 pp).

Compulsory retirement is one of the stages in which a person lives, although retirement is one of the stages in which individuals live and live, but the response to it varies from one individual to the individual, while some individuals receive it with pleasure and contentment, the occurrence of the disaster and leading to the individual entering into a cycle of social problems. Psychic and healthy did not exist before. The employees approach the retirement age for work when they reach a certain age, and the retired one believes that it is the age at which a person relaxes from the troubles of work for many years, but some of them turn their lives upside down because of the problems they face, whether by those around him or because he does not accept the idea of his survival. Don work for the rest of his life (Reem, 2012, 23 p.).

Retirees feel that they have been dismissed from their jobs for no reason other than reaching the age of pension, and this is called compulsory retirement, which is determined by the age of reaching retirement (or reaching the official pension). At work, although when asked, the majority of them prefer to continue working beyond the pension (Fouad Abu Hatab, 2008, 585-586 p.). Irrational thinking leads to intense emotions that lead to disorder, impede reaching goals, and reduce the feeling of satisfaction. Behavioral, psychological and emotional disturbances are the result of wrong thinking methods and errors in thinking habits and methods (Anderson, 2000, 50 p.).

Irrational thoughts come as a result of false cognitive precipitations in forced retirees, resulting in many socio-psychological problems, such as the problem of family relationships and a tendency to depression. Retirement may be linked to some irrational thoughts in some people, as irrational thoughts, rigidity and rejection are among the features that resist the development required by the spirit of this modern age, irrational thoughts related to the loss of hope in the future, the expectation of failure and disasters, the negative outlook of self and the future, the lack of a sense of personal adequacy and a lack of self-worth become obstacles. To advance the retiree and form a burden on him (Ashraf Muhammad Atiyah and Abdul Latif, 2005, 85 p.).

Irrational thoughts arise among retirees as a result of the retired person's lack of self-worth and feeling near term. Abd al-Fattah's study indicates that irrational thoughts cause incompatibility and affect mental health and the presence of psychological and behavioral disorders such as anxiety, depression, and aggression (Abdel-Fattah Abdel-Qader Abu Shaar, 2007, 12 p.). The study (Dia Osman) proved that irrational thoughts cause some psychological and behavioral disorders. (Dia Othman Khaled, 2012, 34 p.) The rational and emotional therapy is considered one of the modern scientific approaches in serving the individual whose effectiveness has appeared in dealing with the individual's irrational thoughts, false self-talk, wrong emotions, and increasing the client's awareness and perception through correcting thoughts, correcting emotions, reducing feelings of guilt, and giving greater value. For a logical, rational discussion with the client, and not imposing certain ideas on him, while trying to persuade him to accept new ideas and replace the old, irrational ideas with more logical and rational ideas through free and democratic dialogue (Abdel Nasser Awad, 2011, 87: 88 p.). Rational emotional therapy is considered one of the cognitive therapies that deal with thoughts, feelings and behavior, which has demonstrated its effectiveness

with many groups, as it contributes to the development of the client's self by reconnecting the client with reality and the truth and learning skills to face the situations that accompany frustration and failure, and the skills that enable him to Dealing with it, as it aims to prepare the individual internally to accept what he is and the circumstances surrounding what supports the client's positive and logical rational thinking (Ibrahim Abdel Sattar, 2003, 98 p.).

Rational Emotive Therapy is based on a set of cognitive, emotional and behavioral tactics that help to change thinking patterns and false beliefs, and change wrong behaviors (Corey, Gerlad, 2004, p.11).

The use of this treatment has achieved effectiveness with different problems and multiple groups, for example its effectiveness in alleviating the social and psychological problems of diabetics (Afaf Rashid Abdul Rahman, 1998) and in alleviating the severity of social and psychological problems of mothers of children with leukemia (Amani Fawzi , 2004, 89 p). Retirement is considered to be one of many colors of psychological, social, and especially social suffering, as it affects his psychological state, and social suffering is related to the retirement's loss of his status and importance within the family in addition to his lack of income and this affects his psychological state and his feeling of alienation from his family and himself (Samar Subhi, 2008, 20 p). Retirement from work is a complex social problem that affects the lives of many people, and some believe that forced retirement is a kind of deprivation of individual rights, especially if the individual is forced to give up his work and his role in life is important, and to accept a low level of income due to reaching a certain age. It is a clear problem for most retirees, and retirement constitutes a sudden and rapid change in the individual's life, where patterns of behavior, habits and routines that the individual has been used to for decades are interrupted. Therefore, the negative effects of retirement are many, multiple and intertwined (Muhammad Hassan Ghanem, 2004, 48 p.).

The retired person is exposed to social and psychological problems, the most important of which is the lack of income and the increase in leisure time, which is a major cause of the psychological problem. Some people associate retirement from work with psychological retirement, and they say that the elderly is useless and has no value (Hamid Abdel Salam, 2000, 48 p.). The study (Mahmoud Fathy) focused on describing the role of social service in alleviating the problems of social relations for retirees, through the application of a professional intervention program, in order to help retirees to overcome the problems of disintegrating family relations, the problems associated with the transition to retirement and the inability to adapt to society, And the problem of lack of social status, the negative view of the elderly and the problems of leisure time (Mahmoud Fathy, 2002, 45 p.).

The psychological cognitive aspect that the retired employs is the one that determines his psychological and personal state and his family and social interactions. The retired person faces a special pressure, which is the anxiety after retirement from the inability to provide a comfortable and satisfactory life for him and his wife. Work and achievement in it do not represent any happiness for him as much as ease of living and peace of mind represent more happiness for the retired elderly than men (Abdul Hamid Muhammad, 2013, 33 p.). There are family, social and psychological factors that lead to an increase in the chance of developing depression in the years that follow retirement from work (after the age of 60 years), and this period of life is characterized by the occurrence of many material losses and a decline in physical and social functions as a result of work conditions, as these The retirement stage for those who perform official business.

Also, this stage is characterized by the occurrence of many diseases and physical problems as a result of aging and stress on the body's organs, and the functions of its various organs, and the social aspect is affected as a result of life conditions for the elderly who are more likely to lose relatives, relatives and close friends to death, illness, or travel with weakness that It affects a person at an advanced age, which affects his effort and ability to live independently without assistance (Lotfi Abdel Aziz, 2012, 19 p.). When a person retires, he moves directly from emptiness to emptiness when he moves from work and his obligations and from getting up early to sitting at home, and some may like this situation, but many may not like it. The home, in addition to the

psychological condition of the retiree, may feel worthless, inability to produce, depreciating himself in addition to diminishing income (Abdel-Hamid, 2011, 2504 p.).

Retirees suffer from many health, social, psychological and economic problems, and in general the elderly suffer from a state of feeling after being satisfied with the life they live, especially after retirement from work, shrinking social relations, children being preoccupied with them, or losing a life partner, as well as their social positions and previous roles, in addition to problems Free time and a feeling of alienation and isolation from societal life, which reflects on them a sense of dissatisfaction with life and its pessimistic view of it (Mustafa Maghawri Abd al-Rahman Habib, 2014, 89 p.). Another study indicated that the most important problems that the elderly suffer from are the problems of free time, how to use it, the problems of weak social relations, the diminished roles of the elderly in addition to isolation and a feeling of low social status, and stressed the importance of using the method of community service in working to confront these problems (Azza Abdul Jalil , 2004, 45 p).

Retirement for both elderly men and women leads to social and psychological problems that may affect the quality of life, as the results of Afaf's study indicate that there are significant differences in the problems resulting from retirement between the elderly and older women that negatively affect the quality of life in favor of elderly males (Afaf Rashid Abdul Rahman Rashid, 2005, 78 p.). In a study, Boss and colleagues indicated that retirees reported higher psychological symptoms compared to workers (Boose et al, 1987, p383). The study (Muhammad Hassan) indicated that the psychological problems facing the retired are grief and grief resulting from loneliness, loss of love and interaction with others, feelings of guilt resulting from conflicts, absorption in past events, feelings of loneliness, feelings of emptiness and depression, which is partly due to the lack of human relationships. Through it he satisfies his human needs and anxiety, especially the anxiety of death, feeling the severity of illness and disability, and entering into the problems of the retirement stage, such as: dementia, old-age psychosis, and a person may reach the stage of dementia (Muhammad Hassan Ghanem, 2008, 76 p.).

The results of another study revealed the possible relationship between optimism and pessimism among retirees and workers after retirement and some socio-demographic variables defined in "family size, social class, degree of religiosity, educational level, number of friends and age", that the more religious workers after retirement age were more optimistic. And less pessimistic, She also emphasized that the higher the degree of religiosity, the greater the number of friends, and the larger the family size, the greater the level of optimism among the retired elderly (Najwa Yahya, 2004, 78 p.). The vast majority of the elderly fall into the category of women, and the 2010 statistics indicate an increase in the percentage of elderly women to 20% compared to 15% for the elderly men (Central Agency for Public Mobilization and Statistics, 2010). The percentage in 2012 in Cairo governorate reached the number of elderly women about 264,379 thousand people That is, by 8.0%, and the number of elderly men is about 30,543 thousand people, or 8.9% of the total population (Central Agency for Public Mobilization and Statistics, 2012, 9am).

In the 2014 census, the number of elderly males was 25,144,49, or 4.1% of the total population, and the number of elderly women was 19,191,62, or 3.9%, which indicates the convergence of the numbers of male and female elderly, meaning an increase in the proportion of elderly people in general and an increase The percentage of the number of elderly males in particular (Central Jazz for Mobilization and Statistics, 2014). The study (Muhammad Bassiouni) also emphasized the importance of group discussion in helping the elderly feel their worth and standing among their colleagues, gaining self-confidence and a sense of responsibility, and helping them out of isolation and introversion, as it is an opportunity for them to exchange views and ideas about issues that concern them, and the elderly by nature tends to To dialogue, talk and discussion about his experiences in life, and this reflects the elderly's desire to get out of his isolation (Muhammad Bassiouni, 2009, 43 p).

The importance of the role of social service for retired elderly also comes as compulsory through professional intervention for retirees to help them adapt to the new social and psychological life, and this helps them to accept reality, which increases their adherence to life.

As the results of the study (Hanan Abdel-Rahman) revealed that one of the goals of professional intervention for the method of serving the individual that leads to improving the quality of life for retired elderly is to improve the psychological state of retired elderly people, develop the ability of the retired elderly to self-reliance and improve the level of social relations between the retired elderly and his peers, his family and his community (Hanan Abdel-Rahman, 2009, 39 p.) The study (Asma Hassan) also found that providing social safety for the retired elderly is achieved through a sense of his role and position in society, then his good social relations and the need to provide him with sufficient income to secure his life and a good investment of his spare time by investing his capabilities and consulting him in various fields (Asma Hassan, 2011, 45 p). The results of the study (Afaf Rashid) showed that, after widowhood, the older women have reduced their social relations and weakened their participation in social life, in addition to their neglect of practicing the activities of daily life. The study concluded on the effectiveness of cognitive behavioral therapy in serving the individual in modifying the lifestyle of widowed elderly women and increasing their satisfaction with their behavior (Afaf Rashid, 2004, 13 p).

Accordingly, the problem of the study was determined in a question: What is the effectiveness of a professional intervention program within the framework of strategies and methods of rational-emotional-behavioral therapy in modifying the irrational thoughts related to the pressures of life for forced retirees?

2. The importance of the study

- a) This study coincides with the increasing global and local interest in the retired category.
- b) This study derives its importance from the importance of the category it deals with.
- c) The increasing number of retired cases in Egypt.
- d) The scarcity of studies that dealt with the problems of retirees in social service in general and individual service in particular.
- e) This study may contribute to enriching the theoretical and cognitive side of the method of serving the individual in identifying irrational suicidal thoughts related to life pressures and how to modify them.

3. Study Objectives

Test the effectiveness of a professional intervention program based on the techniques of rational-emotional therapy in amending the irrational thoughts related to the pressures of life for forced retirees. A set of sub-goals emanates from this goal:

1. Test the effectiveness of the rational emotional-behavioral therapy program in modifying the irrational thoughts related to the family life pressures of forced retirees.
2. To test the effectiveness of the rational emotional behavioral therapy program in modifying the irrational thoughts related to the economic life pressures of forcibly retired persons.
3. To test the effectiveness of the rational emotional-behavioral therapy program in modifying the irrational thoughts related to the pressures of the educational life of forced retirees.
4. To test the effectiveness of the rational emotional behavioral therapy program in modifying the irrational thoughts related to the pressures of the professional life of forced retirees.
5. Test the effectiveness of the rational emotional-behavioral therapy program in modifying the irrational thoughts related to the emotional life pressures of forced retirees.

4. Concepts of the study

4.1. The concept of retirement

Retirement is defined in the English language dictionary as: referral to pension, retirement as the place of his isolation and seclusion, retirement, he retires, resigns, dismisses or withdraws and retires (Abdel Mohsen Ramadan, 2006, 479 p.).

Achley believes that the term retirement refers to a person's separation from his professional position. It does not mean leaving a role, but also meaning a new role that affects the other roles played by the individual (Dictionary of Administrative Term, 2007, 752 p).

Retirement is also defined as "the stage of leaving work by someone legally, and usually when reaching a certain age or after performing specific years at work" (Dictionary of Administrative Term, 2007, 752 p). Retirement is also defined in the dictionary of terms and social sciences as the employee's reaching a certain age during which he is supposed to be unable to work (Ahmed Zaki Badawi, 1992, 357 p.).

As for retirement as a juvenile, the glossary of social service terms linked it to the degree of social security availability for the retired person, and believes that retirement is a state of withdrawal from regular work or discontinuation from the exercise of work activities compulsory or optional, where he is encouraged to retire in an organized framework that provides the retiree with bonuses. Financial and material aid (Hamdi Mansour, 2010, 259 p).

4.2. Procedural definition of retired according to the current study

- a) Retirement is a process that results in the individual's withdrawal from the society in which he lives.
- b) The retired person here is the person who lost his job by choice or against his will after having served a period of time that is not less than 20 years.
- c) His social roles were disrupted, and his psychological problems worsened, including (fear, anxiety and depression).
- d) Which affected his social relationship, including (his relationship with his family, his relationship with friends, his relationship with neighbors) in general.
- e) Its relationship with itself in particular.

4.3. Life Stress

The term stress is derived from the ancient French word distress, which refers to the meaning of suffocation, a feeling of malaise and injustice. The word stress has been used to express suffering, distress and persecution, which is a condition in which the individual suffers from a sense of injustice.

The origin of the term stress is derived from the old French word distress, and it turned into stress in English, which referred to the meaning of diminution. As for destine, it was to refer to something that is not likable or unwanted. It can be said that the term may be used to express suffering, distress and persecution, a condition in which the individual suffers a sense of injustice. Use the term stress to mean stress (Hamdi Ali Al-Faramawy and others, 1994: 13-12).

And according to the dictionary of psychology and psychiatry, the term stress has many meanings, including (pressure - distress - distress - stress) and it expresses a state of physical and psychological stress, which imposes on the individual the demands and burdens that he must comply with. (Omar and Ahmed Al-Sayed, 2007, 39)

4.4. Definition: (Stress)

It is the process by which environmental facts and forces - called pressures - threaten the organism's construction and integrity, and by which the organism also responds to this threat. (Abdel-Aziz Al-Nuha, 139, 2001).

The Social Service Dictionary defines stress as any effect that interferes with the normal functioning of the organism and results in internal tensions related to environmental dimensions, and any effect that conflicts with the normal functioning of the organism and results in internal emotion or tension (Ahmad Al-Sukkari 2000, 517).

4.4.1. Stresses

It expresses the same event, that is, falling under pressure by the effectiveness of compressors, that is, the individual fell under pressure. (Hassan Abdel Muti, 2006, 19).

4.4.2. Compression: (Strain)

It expresses the condition that the individual suffers and groans from, which expresses itself in the feeling of fatigue, exhaustion and self-burning, and the individual expresses it with qualities such as: fearful, anxious, taut, tense, and apprehensive. (Harun Al-Rashidy: 1999, 15).

4.4.3. The concept of life stress: Life Stress

It is a group of psychological, environmental and genetic accumulations and personal situations as a result of crises, tensions and difficult or harsh conditions that the individual is exposed to and varies in terms of their severity as they change over time depending on the recurrence of difficult situations encountered by the individual, but it may remain for a long time if the provocative circumstances persist and leave traces. Psychic for an individual (Narrator Desouki: 2000,203-204).

The pressures of life in the service of the individual are defined as the situations that the individual goes through in his life and he thinks that they exceed his capabilities and personal and environmental resources for the crisis to deal with, and thus the individual experiences a feeling of anxiety, fear, or the inability to control them (Abdul-Aziz Al-Nuha: 2002, 96)

5. Systematic procedures:

5.1. Type of study

This study belongs to experimental studies aimed at testing an independent variable (rational emotional therapy) on a dependent variable (irrational thoughts related to life stress) in forced retirees.

5.2. Curriculum

The study uses the experimental method based on the experimental and control groups through the pre and post measurements of the two groups.

5.3. Hypotheses of the study

There are statistically significant differences between the use of rational and emotional therapy and the amendment of irrational thoughts related to life pressures in forced retirees, and a set of sub-hypotheses emerge from this hypothesis:

1. There are no significant differences between the average scores of the experimental group and the control group in the level of irrational thoughts before the professional intervention using the irrational thoughts scale in favor of the control and experimental groups.
2. There are no significant differences between the average scores of the experimental group and the control group in the level of irrational thoughts before the professional intervention using the life stress scale in favor of the control and experimental groups.
3. There are significant differences between the mean scores of the control group cases before and after the professional intervention program using the irrational thoughts scale.
4. There are significant differences between the mean scores of the control group cases before and after the professional intervention program on the scale of life stress.
5. There are significant differences between the average scores of the experimental group cases in the level of irrational thoughts before and after the professional intervention using the irrational thoughts scale in favor of the experimental group.
6. There are significant differences between the average scores of the experimental group cases in the level of irrational thoughts before and after the professional intervention using the life stress scale in favor of the experimental group.

7. There are significant differences between the mean scores of the experimental group and the control group after the professional intervention using the irrational thoughts scale in favor of the experimental group.
8. There are significant differences between the mean scores of the experimental group and the control group after the occupational intervention using the scale of life pressures in favor of the experimental group.

6. Study tools

6.1. Self-reports.

1. The Stressful Life Events Scale, prepared by Imad Ali Mustafa Abdel-Razek in 2012, and it includes stress (family, economic, professional, emotional, and educational).
2. The Irrational Ideas Scale 2014 by Bashir Muamariah

6.2. Fields of Study

1. Spatial domain: Cairo University - Helwan University.
2. The human domain: 20 retirees.
3. The chronological field: the period of conducting the study, in its two parts (theoretical and practical).

6.3. The professional intervention program according to the rational emotive therapy model

The researcher will present a program for using REBT to modify the irrational thoughts related to the pressures of life of forced retirees, as follows: The professional intervention program aims to modify the irrational thoughts related to the pressures of life of forced retirees, and this goal is achieved through the following goals:

- Identify irrational thoughts related to life pressures.
- Recognizing the pressures that lead to these irrational thoughts.
- Modifying these ideas through a professional intervention program.

This is done through the following stages:

1. Beginning stage:
 - a) Review the references, studies and research related to rational emotional therapy in the service of the individual and related to the amendment of irrational thoughts.
 - b) Designing the scale of irrational thoughts related to life pressures and conducting honesty and consistency with it.
 - c) Application of the irrational thoughts scale related to life pressures.
 - d) Selecting the study sample to whom the sample conditions meet.
 - e) The verbal contract between the researcher and the clients, which includes specifying the goals and duties, the number and time of the interviews, and the period of the contract.
2. The professional intervention stage:
 - a) Conducting the pre-measurement for the experimental and control groups, by using the irrational thoughts scale related to life pressures.
 - b) Conducting the pre-measurement for the experimental and control groups.

- c) Description of rational emotional treatment through a simple explanation of ABC theory for the study sample.
- d) Explain Alice's irrational thoughts and their effect on individual behavior.
- e) Identifying these irrational thoughts.

Determining treatment strategies, represented in:

- A. The cognitive review is done by encouraging clients to list irrational thoughts related to life pressures and their negative perceptions of self and the future.
- B. Cognitive restructuring by modifying irrational thoughts and adopting a positive conversation that helps the growth of a positive self, self-confidence and not feeling despair.
 - The therapeutic techniques that the researcher will rely on in implementing the program:
First: Cognitive techniques, which include:
 - Logical discussion of irrational thoughts.
 - The philosophical and logical analysis of irrational ideas.
 - Stop thinking.
 - Cognitive dispersion.
 - Encouragement.
 - Refutation.
 - Looking at alternative possibilities.
 - Clarification.
 - Flexibility.
- C. The end stage:
 - Conducting a post measurement using the scale of irrational thoughts resulting from life pressures.
 - Post-measurement procedure.
 - Making comparisons between the tribal and dimensional measurements of the two groups.
 - The use of statistical transactions to determine the effectiveness of the professional intervention program in amending the irrational thoughts resulting from the pressures of life of forced retirees.And take into account in the final stage, spacing between professional interviews.
- D. Follow-up phase: the researcher pauses for a month to ensure that the results are preserved. Program success indicators:
 - Reaching out to irrational thoughts resulting from life pressures.
Modifying these ideas through a professional intervention program.
 - Identify the pressures that lead to these irrational thoughts
 - The differences between the two dimensions in favor of the experimental group.
- E. The time period required to implement the program: two months.

7. Characteristics of the study sample

✓ In terms of age:

Table 1. The age distribution of the study sample for the experimental and control group

Total	Groups				Age	m	
	Control		Experimental				
%	No	%	Number	%	Number		
60	12	70	7	50	5	21-18	1
40	8	30	3	50	5	24-22	2
100	20	20.50	arithmetic mean	21.40	arithmetic mean	20.50	arithmetic mean
		2.068	standard deviation	2.22	standard deviation	2.068	standard deviation

N=20

It is evident from the data of the previous table that the cases from (18-21) years in the control group came first, then from (18-24) years in the experimental group came in the second place, then from (22-24) years in the control group in The third place, and this indicates that the 10 cases in the experimental group were equal, and we find that the arithmetic mean for age in the experimental group is 21.40, with a standard deviation of 2.22, while the arithmetic mean of the control group is 20.50 and with a standard deviation of 2.068.

Table 2. Distribution of the study sample for the experimental and control group in terms of age using Mann Whitney

Groups	N	arithmetic mean	standard deviation	total ranks	mean of ranks	z-value	significance level
Experimental	10	1.80	0.42	110	11	0.503	non-significant
Control	10	1.70	0.48	100	10		

N=20

It is evident from the results of the table that there are no statistically significant differences between each of the experimental group and the control group in terms of age, as the value of $z = (0.918)$ and thus is not significant, indicating the homogeneity between the two groups, and that they started from the same level of convergence.

✓ In terms of type:

Table 3. Clarifies the distribution of the study sample of the experimental group and the control group in terms of type

Groups	N	arithmetic mean	standard deviation	total ranks	mean of ranks	z-value	significance level
Experimental	10	21.40	2.22	117	11.70	0.918	non-significant
Control	10	20.50	2.068	93	9.30		

N=20

It is evident from the table data that the number of females in the experimental group (8 females) is greater than the number of females in the control group, who are (7), while the number of males in the control group, who are (3 males), is more than the control group, who are (2 males), because Most of the retirement cases in the application period are females, and there are rarely males. We find that the arithmetic mean for gender in the experimental group is 1.80 with a standard deviation of 0.42, while the arithmetic mean for the control group is 1.70 and a standard deviation of 0.48.

Table 4. Distribution of the study sample for the experimental and control group in terms of type using Mann Whitney

m	type	Groups				Total	
		Control		Experimental		Number	%
		Number	%	Number	%		
1	male	30	3	20	2	5	25
2	Female	70	7	80	8	25	75
	arithmetic mean	1.80		arithmetic mean		20	100
	standard deviation	0.42		standard deviation			0.48

N=20

It is evident from the results of the table that there are no statistically significant differences between each of the experimental group and the control group in terms of type, as the value of $z = (0.503)$ which is not significant, indicating the homogeneity between the two groups.

8. Second: Presentation of the results of the study

8.1. The first assumption

There were no significant differences between the mean scores of the experimental group and the control group in the level of irrational thoughts before the professional intervention using the life stress scale in favor of the control and experimental groups.

Table 5. Explains the significance of the differences between the pre-measurement of the experimental group and the control group on the scale of irrational suicidal thoughts using the Mann-Whitney test

Groups	N	arithmetic mean	standard deviation	total ranks	mean of ranks	z-value	significance level
Experimental	10	44.40	14.37	66	6.60	2.949	non-significant
Control	10	68.80	13.45	144	14.40		

N=20

It is clear from the previous table that there are no statistically significant differences between the averages of the ranks of the irrational ideas of forced retirees in the pre-measurement of the experimental group and the control group, where the arithmetic mean of the experimental group reached (44.40) with a standard deviation (14.37), while the arithmetic mean of the control group was (68.80) with a standard deviation (13.45), and the value of $z = (2.949)$, which is not significant, and this confirms the validity of the hypothesis that there were no differences in the pre-measurement of the experimental group and the control group on the scale of irrational thoughts because they were not exposed to the professional intervention program.

8.2. The second assumption

There were no significant differences between the mean scores of the experimental group and the control group in the level of irrational thoughts before the professional intervention using the life stress scale in favor of the control and experimental groups.

Table 6. Explains the significance of the differences between the pre-measurement of the experimental group and the control group on the scale of life pressures using the Mann Whitney test

Groups	N	arithmetic mean	standard deviation	total ranks	mean of ranks	z-value	significance level
Experimental	10	121.70	18.45	120	12	1.136	non-significant
Control	10	108.60	24.93	90	9		

N=20

It is evident from the previous table that there are no statistically significant differences between the averages of life stress ranks for forced retirees in the pre-measurement of the experimental group and the control group, where the arithmetic mean of the experimental group was (121.70) with a standard deviation (18.45), while the arithmetic mean of the control group was (108.60) with a standard deviation (24.93), and the value of $z = (1.136)$, which is not significant, and this confirms the validity of the hypothesis that there are no differences in the pre-measurement of the experimental group and the control group on the scale of life pressures because they are not exposed to the professional intervention program.

9.3. The third hypothesis

There were significant differences between the mean scores of the control group cases before and after the professional intervention program using the irrational thoughts scale.

Table 7. Explains the significance of the differences between the mean scores of the control group before and after the professional intervention program on the irrational thoughts scale using the Wilcoxon test.

Measurements	N	arithmetic mean	standard deviation	total ranks		mean of ranks		z value	significance level
				Positive	negative	Positive	negative		
Pre-measurement	10	68.80	13.45	1	54	1	6	2.705	function at the level of 0.01
Telemetry	10	55.20	10.45						

N=20

It is evident from the previous table that there are statistically significant differences between the averages of the ranks of the irrational ideas of forced retirees in the pre and post measurement of the control group, where the arithmetic mean in the pre-measurement reached (68.80) with a standard deviation (13.45), while the arithmetic mean in the post measurement reached (55.20) with a deviation My standard (10.45), and the value of $z = (2.705)$, which is a function of a significant level (0.01), confirms the validity of the hypothesis with the existence of differences between the pre-measurement and the post-measurement of the control group on the scale of irrational thoughts.

9.4. Fourth hypothesis

There were significant differences between the mean scores of the control group cases before and after the occupational intervention program on the scale of life stress.

Table 8. Explains the significance of the differences between the mean scores of the control group before and after the occupational intervention program on the scale of life stress using the Wilcoxon test

Measurements	N	arithmetic mean	standard deviation	total ranks		mean of ranks		z value	significance level
				Positive	negative	Positive	negative		
Pre-measurement	10	108.60	24.93	4	51	4	5.67	2.403	function at the level of 0.05
Telemetry	10	103	19.46						

N=20

It is clear from the previous table that there are statistically significant differences between the averages of life stress ranks for compulsory retirees in the pre and post measurement of the control group, where the arithmetic mean in the pre-measurement reached (108.60) with a standard deviation (24.93), while the arithmetic mean in the post measurement reached (103) with a deviation Standard (19.46), and the value of $z = (2.403)$, which is a function of a significant level (0.05), and confirms the validity of the hypothesis by the existence of differences between the pre-measurement and the post-measurement of the control group on the scale of life stress.

9.5. Fifth hypothesis

There are significant differences between the mean scores of the experimental group cases in the level of irrational thoughts before and after the professional intervention using the irrational thoughts scale in favor of the experimental group.

Table 9. Explains the significance of the differences between the mean scores of the experimental group before and after the professional intervention program on the scale of irrational thoughts using the Wilcoxon test

Measurements	N	arithmetic mean	standard deviation	total ranks		mean of ranks		z value	significance level
				Positive	negative	Positive	negative		
Pre-measurement	10	44.40	14.37	55	0	5.50	0	2.807	function at the level of 0.01
Telemetry	10	77.30	5.19						

N=20

It is evident from the previous table that there are statistically significant differences between the averages of the ranks of the irrational ideas of forced retirees in the pre and post measurement of the experimental group, where the arithmetic mean in the pre-measurement reached (44.40) with a standard deviation (14.37), while the arithmetic mean in the post measurement reached (77.30) with a deviation Standard (5.19), and the value of $z = (2.807)$, which is a function of the level of significance (0.01), which indicates the effectiveness of the professional intervention program and confirms the validity of the hypothesis with the presence of differences between the pre-measurement and the post-measurement in favor of the post-test of the experimental group on the scale of irrational thoughts.

9.6. The sixth hypothesis

There are significant differences between the mean scores of the experimental group cases in the level of irrational thoughts before and after the professional intervention using the scale of life stress in favor of the experimental group.

Table 10. Explains the significance of the differences between the mean scores of the experimental group before and after the occupational intervention program on the scale of life stress using the Wilcoxon test

Measurements	N	arithmetic mean	standard deviation	total ranks		mean of ranks		z value	significance level
				Positive	negative	Positive	negative		
Pre-measurement	10	121.70	18.45	0	55	0	5.50	2.805	function at the level of 0.01
Telemetry	10	59.50	15.71						

N=20

It is evident from the previous table that there are statistically significant differences between the means of life stress ranks for compulsory retirees in the pre and post measurement of the experimental group, where the arithmetic mean in the pre-measurement was (121.70) with a standard deviation (18.45), while the arithmetic mean in the post measurement was (59.50) with a deviation My criteria (15.71), and the value of $z = (2.805)$, which is a function of a significant level (0.01), which indicates the effectiveness of the professional intervention program and confirms the validity of the hypothesis by the existence of differences between the pre-measurement and the post-measurement in favor of the experimental group on the scale of life stress.

9.7. The seventh hypothesis

There are significant differences between the mean scores of the experimental group and the control group after the professional intervention using the irrational thoughts scale in favor of the experimental group.

Table 11. Explains the significance of the differences between the post measurement of the experimental group and the control group on the scale of irrational thoughts using the Mann Whitney test

Groups	N	arithmetic mean	standard deviation	total ranks	mean of ranks	z-value	significance level
Experimental	10	77.30	5.19	151	15.10	3.492	function at the level of 0.01
Control	10	55.20	10.45	59	5.90		

N=20

It is evident from the previous table that there are statistically significant differences between the averages of the ranks of the irrational ideas of forced retirees in the post measurement of the experimental group and the control group, where the arithmetic mean of the experimental group reached (77.30) with a standard deviation (5.19), while the arithmetic mean of the control group (55.20) with a standard deviation (10.45), and the value of $z = (3.492)$, which is a function of a significant level (0.01), which indicates the effectiveness of the professional intervention program, and this confirms the validity of the hypothesis that there are differences in the post-measurement of the experimental group and the control group on the scale of irrational thoughts in favor of the experimental group.

9.8. The eighth hypothesis

There are significant differences between the mean scores of the experimental group and the control group after the occupational intervention using the scale of life stress in favor of the experimental group.

Table 12. Explains the significance of the differences between the telemetry of the experimental group and the control group on the scale of life pressures using the Mann-Whitney test

Groups	N	arithmetic mean	standard deviation	total ranks	mean of ranks	z-value	significance level
Experimental	10	59.50	15.71	59.50	5.95	3.450	function at the level of 0.01
Control	10	103	19.47	150.50	15.05		

N=20

It is evident from the previous table that there are statistically significant differences between the averages of life stress ranks for compulsory retirees in the post measurement of the experimental group and the control group, where the arithmetic mean of the experimental group reached (59.50) with a standard deviation (15.71), while the arithmetic mean of the control group (103) with a standard deviation (19.47), and the value of $z = (3.450)$, which is a function of a significant level (0.01), which indicates the effectiveness of the professional intervention program, and this confirms the validity of the hypothesis that there are differences in the telemetry of the experimental group and the control group on the scale of life pressures in favor of the experimental group.

9. Conclusion

The results of the study indicated that there were no statistically significant differences between the averages of the ranks of irrational ideas of forced retirees in the pre-measurement of the experimental group and the control group, where the arithmetic mean of the experimental group reached (44.40) with a standard deviation (14.37), while the arithmetic mean of the control group was (68.80) with a deviation My standard is (13.45), and the value of $z = (2.949)$ which is not significant, and this confirms the validity of the hypothesis that there are no differences in the pre-measurement of the experimental group and the control group on the scale of irrational thoughts

because they are not exposed to the professional intervention program. These calls for accepting the validity of the first hypothesis of the study which says: There were no significant differences between the mean scores of the experimental group and the control group in the level of irrational thoughts before the professional intervention using the irrational thoughts scale in favor of the control and experimental groups.

The results of the study indicated that there were no statistically significant differences between the averages of life stress ranks for compulsory retirees in the pre-measurement of the experimental group and the control group, where the arithmetic mean of the experimental group reached (121.70) with a standard deviation (18.45), while the arithmetic mean of the control group was (108.60) with a deviation My standard (24.93), and the value of $z = (1.136)$ which is not significant, and this confirms the validity of the hypothesis that there are no differences in the pre-measurement of the experimental group and the control group on the scale of life pressures because they are not exposed to the professional intervention program. This calls for accepting the validity of the second hypothesis of the study saying There were no significant differences between the mean scores of the experimental group and the control group in the level of irrational thoughts before the professional intervention using the life stress scale in favor of the control and experimental groups.

The results of the study indicated that there are statistically significant differences between the averages of the ranks of the irrational ideas of forced retirees in the pre and post measurement of the control group, where the arithmetic mean in the pre-measurement reached (68.80) with a standard deviation (13.45), while the arithmetic mean in the post measurement reached (55.20) With a standard deviation (10.45), and the value of $z = (2.705)$, which is a function of a significant level (0.01), which indicates the effectiveness of the rational emotional therapy with the experimental group and confirms the validity of the hypothesis that there are differences between the pre-measurement and the post-measurement of the control group on the scale of irrational thoughts and this Calls to accept the validity of the third hypothesis of the study, which says: There are significant differences between the mean scores of the control group cases before and after the professional intervention program using the irrational thoughts scale.

The results of the study indicated that there are statistically significant differences between the averages of life stress ranks for compulsory retirees in the pre and post measurement of the control group, where the arithmetic mean in the pre-measurement reached (108.60) with a standard deviation (24.93), while the arithmetic mean in the post measurement reached (103) With a standard deviation (19.46), and the value of $z = (2.403)$, which is a function at the level of significance (0.05), and confirms the validity of the hypothesis by the presence of differences between the pre-measurement and the post-measurement of the control group on the scale of life stress, and this calls for accepting the validity of the fourth hypothesis of the study saying: There are Significant differences between the mean scores of the control group cases before and after the occupational intervention program on the scale of life stress.

The results of the study indicated that there are statistically significant differences between the averages of the ranks of the irrational ideas of forced retirees in the pre and post measurement of the experimental group, where the arithmetic mean in the pre-measurement reached (44.40) with a standard deviation (14.37), while the arithmetic mean in the post measurement reached (77.30) With a standard deviation (5.19), and the value of $z = (2.807)$, which is a function of a significant level (0.01), which indicates the effectiveness of the professional intervention program and confirms the validity of the hypothesis that there are differences between the pre-measurement and the post-measurement in favor of the experimental group on the scale of irrational thoughts, and this calls To accept the validity of the fifth hypothesis of the study that: There are significant differences between the mean scores of the experimental group cases in the level of irrational ideas before and after the professional intervention using the irrational thoughts scale in favor of the experimental group.

The results of the study indicated that there are statistically significant differences between the means of life stress ranks for compulsory retirees in the pre and post measurement of the experimental group, where the arithmetic mean in the pre-measurement reached (121.70) with a

standard deviation (18.45), while the arithmetic mean in the post measurement reached (59.50) With a standard deviation (15.71), and the value of $z = (2.805)$, which is a function of a significant level (0.01), which indicates the effectiveness of the professional intervention program and confirms the validity of the hypothesis that there are differences between the pre-measurement and the post-measurement in favor of the experimental group on the scale of life stress and this calls To accept the validity of the sixth hypothesis of the study that: There are significant differences between the mean scores of the experimental group cases in the level of irrational ideas before and after the professional intervention using the scale of life pressures in favor of the experimental group.

The results of the study indicated that there are statistically significant differences between the averages of the ranks of the irrational ideas of forced retirees in the post measurement of the experimental group and the control group, where the arithmetic mean of the experimental group reached (77.30) with a standard deviation (5.19), while the arithmetic mean of the control group was (55.20) with a standard deviation. (10.45), and the value of $z = (3.492)$, which is a function of the level of significance (0.01), which indicates the effectiveness of the professional intervention program, and this confirms the validity of the hypothesis that there are differences in the post-measurement of the experimental group and the control group on the scale of irrational thoughts in favor of the experimental group and this calls To accept the validity of the seventh hypothesis of the study that: There are significant differences between the average scores of the experimental group and the control group cases after the professional intervention using the irrational thoughts scale in favor of the experimental group.

The results of the study indicated that there is clear from the previous table that there are statistically significant differences between the averages of life stress ranks for forced retirees in the post measurement of the experimental group and the control group, where the arithmetic mean of the experimental group reached (59.50) with a standard deviation (15.71), while the arithmetic mean of the group Control (103) with a standard deviation (19.47), and the value of $z = (3.450)$, which is a function of a significant level (0.01), which indicates the effectiveness of the professional intervention program. Life is for the benefit of the experimental group.

These calls for accepting the validity of the eighth hypothesis of the study, which says: There are significant differences between the mean scores of the experimental group and the control group cases after the professional intervention using the measure of life pressures in favor of the experimental group.

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