An Information System for Analyzing and Discovering Suicide Research Literature

Greg Riccardi, PhD
Diane Leiva, PhD
Casey McLaughlin, MS
MSRC Core B will have the responsibility to...

"...Disseminate MSRC knowledge, information, and findings through a variety of methods appropriate for decision makers, practitioners, and others who are accountable for ensuring the mental health of military personnel.

This will include a rapid response function so that queries from decision makers and others to the MSRC will be answered with speed and efficiency. ...."
Is Low Dietary Intake of Omega-3 Fatty Acids Associated With Depression?

Reeta Hakkarainen, M.B.
Timo Partonen, M.D.
Jari Haukka, Ph.D.
Jarmo Virtamo, M.D.
Demetrius Albanes, M.D.
Jouko Lönnqvist, M.D., Ph.D.

Objective: This study examined the association between the dietary intake of omega-3 fatty acids and low mood, major depression, and suicide.

Method: A total of 29,133 men ages 50 to 69 years participated in a population-based trial in Finland. The intake of fatty acids and fish consumption were calculated from a diet history questionnaire. Self-reported depressed mood was recorded three times annually, data on hospital treatments due to a major depressive disorder were derived from the National Hospital Discharge Register, and suicides were identified from death certificates.

Results: There were no associations between the dietary intake of omega-3 fatty acids or fish consumption and depressed mood, major depressive episodes, or suicide.

Conclusions: Dietary intake of omega-3 fatty acids showed no association with low mood level.

(Am J Psychiatry 2004; 161:567–569)

Omega-3 fatty acids are essential long-chain polyunsaturated fatty acids that are concentrated in the CNS, retina, and testes in humans. Alpha-linolenic acid is present in plants and is needed for the synthesis of eicosapentaenoic and docosahexaenoic acids that are received directly from marine sources.

There is some evidence that omega-3 fatty acids are linked to depression (1). Studies have reported reduced levels of omega-3 fatty acids in plasma and cell membranes from depressed patients (2–4). One double-blind, placebo-controlled trial (5) has shown that omega-3 supplementation (three times annually) during the trial, ranging from 5 to 8 years in duration (median=6). Data on hospital treatment due to depressive disorder were derived from the National Hospital Discharge Register, which covers inpatient admissions to all medical and psychiatric hospitals in Finland. The follow-up of survival extended to Dec. 31, 1994. Data regarding deaths were derived from the Central Population Register, and the cause of death was reviewed from death certificates. Details of the assessment have been described elsewhere (8).

Both placebo and intervention groups were included in the analysis. Cox's proportional hazards regression models were used to estimate the relationships between baseline dietary intake of omega-3 fatty acids, categorized in tertiles, and the first hospitalization. For each intervention group,
Use of Omega-3 for Suicide Prevention
Peter M. Gutierrez, Ph.D. for the Military Suicide Research Consortium
September 13, 2011

Is there adequate evidence to support the use of Omega-3 supplements for treatment of depression or suicide risk? There are currently two studies in support of a positive effect on depression and suicide risk. Logan (2004) concluded there is enough epidemiological, laboratory and clinical evidence to suggest that omega-3 fatty acids may play a role in certain cases of depression. Hallahan et al. (2007) conducted a study with two groups (placebo and Omega 3). They found statistically significant differences in suicidal ideation when compared categorically, but the proportion of self-harm episodes was higher in the placebo group, although the difference was not statistically significant.

Conversely, other studies have failed to find an effect of omega-3 supplements. Hakkarainen et al. found no associations between the dietary intake of omega-3 fatty acids or fish consumption and depressed mood, major depressive episodes, or suicide. The authors concluded that dietary intake of omega-3 fatty acids showed no association with low mood level. A double-blind, placebo-controlled study of the omega-3 fatty acid docosahexaenoic acid in the treatment of major depression failed to show a significant effect of DHA monotherapy in subjects with major depression.

In terms of safety of taking these supplements, Emsley et al. (2008) looked at the safety of the omega-3 fatty acid, eicosapentaenoic acid (EPA) in psychiatric patients. The authors found that adverse event reporting was similar for the two groups (EPA vs. placebo). While there were no significant between-group differences, in the blinded phase the EPA group showed a significant increase in body mass index (BMI) and bleeding time. In the open-label extension, there was again a modest increase in BMI. Total cholesterol and HDL levels were significantly decreased. EPA 2 g/day is generally well tolerated. Clinicians should be aware of possible increases in bleeding time, as well as changes in weight and lipid metabolism.

In conclusion, there is minimal concern regarding the side effects of these supplements or patient’s inability to tolerate them. Use of these supplements may improve certain symptoms or lower risk of suicide, but they are certainly not a “magic bullet” to cure suicide.
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4. Take advantage of previous reviews you have written
Searching: **Academic Search Complete**  |  Choose Databases »

- **suicide** in Select a Field (optional)
- AND **gulf war** in Select a Field (optional)
- AND **army** in Select a Field (optional)

**Basic Search** | **Advanced Search** | **Visual Search** | **Search History**
Suicide? ARMY? Gulf War?
References

superior products

Kokuyo founder Zentaro Kuroda established the Kokuyo Group CSR Charter with specific action guidelines for each of five areas in relationships with stakeholders.
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<td>National Institute of Mental Health,</td>
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<td>with approximately one million deaths by suicide each year</td>
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<td>risk factor for suicidal behavior</td>
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<td>and that the most common type of traumatic death suffered</td>
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<td>Scoville, Gardner, &amp; Potter, 2004</td>
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<td>Interpersonal–Psychological Theory of Suicide</td>
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Impulsivity and suicidal behavior: Re-examining a complicated relationship

Suicide is a significant global concern, resulting in the death of approximately one million individuals worldwide each year (National Institute for Mental Health, 2008). In response to this, researchers have devoted a substantial level of attention to understanding suicidal behavior, defined as intentionally self-inflicted bodily harm with the intent to die (Gutierrez, 2007). This work has yielded a growing list of variables linked to increased risk, including hopelessness (Abramson, Metalsky, & Seligman, 1989), substance use (e.g., Bagge & Joiner, 2001), thwarted belongingness, and perceived burdensomeness (Joiner, 2005). Impulsivity, as a risk factor, also typically involves a discussion of mechanisms through which impulsivity might lead to suicidal behavior. For example, the interpersonal-psychological theory of suicidal behavior (IPPS; Joiner, 2005) proposes that the association between suicidal behavior and NSSI is due in large part to decreases in the fear of death...
Is Low Dietary Intake of Omega-3 Fatty Acids Associated With Depression?

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Jarno Virtamo, M.D.
Demetrios Albanese, M.D.
Jouko Löönyviit, M.D., Ph.D.

Objective: This study examined the association between the dietary intake of omega-3 fatty acids and low mood, major depression, and suicide.

Method: A total of 29,113 men ages 50 to 69 years participated in a population-based trial in Finland. The intake of fatty acids and fish consumption were calculated from a diet history questionnaire. Self-reported depressed mood was recorded three times annually; data on hospital treatments due to major depressive disorder were derived from the National Hospital Discharge Register, and suicides were identified from death certificates.

Results: There were no associations between the dietary intake of omega-3 fatty acids or fish consumption and depressed mood, major depressive episodes, or suicide.

Conclusions: Dietary intake of omega-3 fatty acids showed no association with low mood level.

Omega-3 fatty acids are essential long-chain polyunsaturated fatty acids that are concentrated in the CNS, retina, and testes in humans. Alpha-linolenic acid is present in plants and is needed for the synthesis of eicosapentaenoic and docosahexaenoic acids that are received directly from marine sources.

There is some evidence that omega-3 fatty acids are linked to depression (1). Studies have reported reduced levels of omega-3 fatty acids in plasma and cell membranes from depressed patients (2-4). One double-blind, placebo-controlled trial (5) has shown that omega-3 supplements improve the short-term clinical course of patients with bipolar disorder.

Our aim was to study the association between the dietary intake of omega-3 fatty acids and low mood, depression, and suicide. Consumption of fish rich in long-chain omega-3 fatty acids, specifically, was assessed.

Method

This study was based on a cohort (N=23,132) from a randomized, controlled, placebo-controlled primary prevention trial—the ATBC study (8). The study participants were recruited from the total male population of 50 to 69 years of age that was residing in southwestern Finland in 1985 (N=296,896). The review boards of the participating institutions approved the study. All subjects gave written informed consent before random assignment.

Fish and alcohol consumption were assessed through a validated food-frequency questionnaire to measure the habitual dietary intake over the previous year. The reproducibility of this method was 0.5 to 0.7, and the validity was 0.8 to 0.7 for most nutrients (7). The dietary intake of omega-3 fatty acids at baseline was calculated. The study endpoints were self-reported depressed mood, hospital treatment for a major depressive disorder, and death from suicide. The subjects reported settings of anxiety and depression experienced in the 4 months since their previous study visit (three times annually) during the trial, ranging from 5 to 8 years in duration (median). Data on hospital treatments due to depressive disorder were derived from the National Hospital Discharge Register, which covers inpatient admissions to all medical and psychiatric hospitals in Finland. The follow-up of survival extended to Dec. 31, 1994. Data regarding deaths were derived from the Central Population Register, and the cause of death was reviewed from death certificates. Details of the assessment have been described elsewhere (8).

Both placebo and intervention groups were included in the analysis. Cox's proportional hazards regression models were used to estimate the relationships between baseline dietary intake of omega-3 fatty acids, categorized in tertiles, and the first measures of low mood level. Potential risk factors for both major depressive disorder and suicide (age, body mass index, energy intake, serum total cholesterol level, high-density lipoprotein cholesterol level, consumption of alcohol, education, marriage, self-reported depression, self-reported anxiety, and smoking) were entered into the models as covariates. Dietary factors were adjusted for energy intake in the models (9). A test for trend was calculated.

Results

There was no significant association of fish consumption or intake of omega-3 fatty acids with any of the study endpoints (Table 1). A small, marginally elevated risk of self-reported depression was suggested in the highest tertile of fish consumption compared to the lowest tertile. A trend test showed the significance of fish consumption for self-reported depressed mood (P=0.04).

Discussion

Dietary intake of omega-3 fatty acids showed no association to low mood level and related outcomes. We linked the dietary intake of omega-3 fatty acids to the
T Joiner

Further evidence of this in **Lau (1998)**

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This study was based on a cohort (n=23,183) from a randomized, double-blind, placebo-controlled primary prevention trial—the AIBC study (6). The study participants were recruited from the total male population of 50 to 68 years of age that was residing in southwestern Finland in 1985 (N=29,460). The review boards of the participating institutions approved the study. All subjects gave written informed consent before random assignment.

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Omega-3 fatty acids are essential long-chain polyunsaturated fatty acids that are concentrated in the CNS, retina, and testes in humans. Alpha-linolenic acid is present in plants and is needed for the synthesis of docosahexaenoic acid that are received directly from marine sources.

There is some evidence that omega-3 fatty acids are linked to depression (1). Studies have reported reduced levels of omega-3 fatty acids in plasma and cell membranes from depressed patients (2-4). One double-blind, placebo-controlled trial (5) has shown that omega-3 supplements improve the short-term clinical course of patients with bipolar disorder.

Our aim was to study the association between the dietary intake of omega-3 fatty acids and low mood, depression, and suicide. Consumption of fish rich in long-chain omega-3 fatty acids, specifically, was assessed.

Method

This study was based on a cohort (N=98,131) from a randomized, double-blind, placebo-controlled primary prevention study—the ATBC study (6). The study participants were recruited from the total male population of 50 to 60 years of age who were residing in southwestern Finland in 1986 (N=260,866). The review boards of the participating institutions approved the study. All subjects gave written informed consent before random assignment.

Diet and alcohol consumption were assessed through a validated food frequency questionnaire to measure the habitual dietary intake over the previous year. The reproducibility of this method was 0.6 to 0.7, and the validity was 0.6 to 0.7 for most nutrients (7). The dietary intake of omega-3 fatty acids at baseline was calculated. The study endpoints were self-reported depressed mood, hospital treatment for a major depressive disorder, and death from suicide. The subjects reported feelings of anxiety and depression experienced in the 4 months since their previous study visit (three times annually) during the trial, ranging from 5 to 8 years in duration (median). Data on hospital treatments due to depressive disorders were derived from the National Hospital Discharge Register, which covers inpatient admissions to all medical and psychiatric hospitals in Finland. The follow-up of survival extended to Dec 31, 1994. Data regarding deaths were derived from the Central Population Register, and the cause of death was reviewed from death certificates. Details of the assessment have been described elsewhere (8).

Both placebo and intervention groups were included in the analysis. Cox proportional hazards regression models were used to estimate the relationships between baseline dietary intake of omega-3 fatty acids, categorized in tertiles, and the first measures of low mood level. Potential risk factors for both major depressive disorder and suicide (age, body mass index, energy intake, serum total cholesterol level, high-density lipoprotein cholesterol level, consumption of alcohol, education, marriage, self-reported depression, self-reported anxiety, and smoking) were entered into the models as covariates. Dietary factors were adjusted for energy intake in the models (9). A test for trend was calculated.

Results

There was no significant association of fish consumption or intake of omega-3 fatty acids with any of the study endpoints (Table 1). A small, marginally elevated risk of self-reported depression was suggested in the highest tertile of fish consumption compared to the lowest tertile. A trend test showed the significance of fish consumption for self-reported depressed mood (p=.09, df=1, p=.04).

Discussion

Dietary intake of omega-3 fatty acids showed no association to low mood level and related outcomes. We linked the dietary intake of omega-3 fatty acids to the
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References

Further evidence of this in *Lau (1998)*

Thompson (2008) refutes this claim.

Not necessarily. He merely states...

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Method

This study was based on a cohort (10138) from a randomized, controlled, placebo-controlled primary prevention trial—the ARIC study (8). The study participants were recruited from the total sample population of 50 to 69 years of age that was residing in southwestern Finland in 1985 (N=295460). The review boards of the participating institutions approved the study. All subjects gave written informed consent before random assignment.

Fruit and vegetable consumption were assessed through a validated food-frequency questionnaire to measure the habitual dietary intake over the previous year. The reproducibility of this method was 0.7 to 0.8, and the validity was 0.8 to 0.7 for most nutrients (7).

The dietary intake of omega-3 fatty acids at baseline was calculated. The study endpoints were self-reported depressed mood, hospital treatment for a major depressive disorder, and death from suicide. The subjects reported several symptoms and depression experienced in the 1 months since their previous study.
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