



Poster Presentations



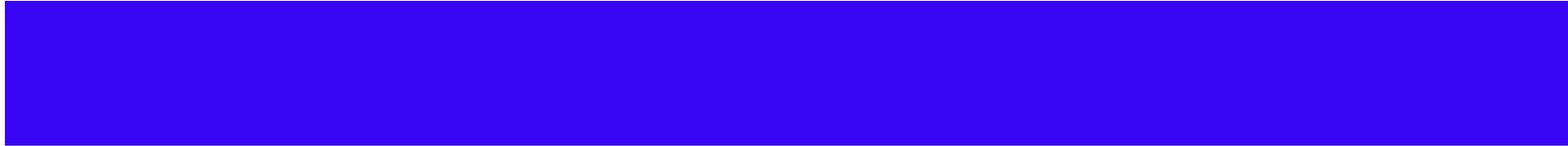
On Moodle

Power point Templates:

Template 1: 3 Column, 40" x 36"

Template 2: 3 Column, 40" x 36"

Template 3: 3 Column, 40" x 36"



Poster design programs...

- Power point – easy, sometimes poor resolution
- Input graphs, text, easy to design, edit and move objects around

Illustrated abstract





Poster title goes here, containing strictly only the essential number of words...



Author's Name/s Goes Here, Author's Name/s Goes Here, Author's Name/s Goes Here
Address/es Goes Here, Address/es Goes Here, Address/es Goes Here

Introduction

First ...

Check with conference organizers on the specifications of abstracts: character sets, font size, color, graphics, etc. Make sure you have a good quality PDF file for printing. Do not change the page size. You can scale the font size to fit the page when printing. You have a choice between using either a portrait or a landscape format.

Be brief! You only have a limited space allocated to you. Do not include too much detail. Do not include too many figures. Do not include too many references.

Method

Describe the methods used in your paper. Be concise and to the point. Do not include too much detail. Do not include too many references.

- Review your paper for clarity and accuracy. Simplify, clarify, and use good grammar.
- Use a word processing program to check for spelling and grammar errors.
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Results

Present your results clearly and concisely. Use figures and tables to illustrate your points. Do not include too much detail. Do not include too many references.

Use a word processing program to check for spelling and grammar errors.

References and Acknowledgements

References should be listed in a separate section. Use a standard format for references. Do not include too many references.

Acknowledgements should be included if you have received any support for your work. Do not include too many acknowledgements.

Aim

State the aim of your paper. Be clear and concise. Do not include too much detail. Do not include too many references.

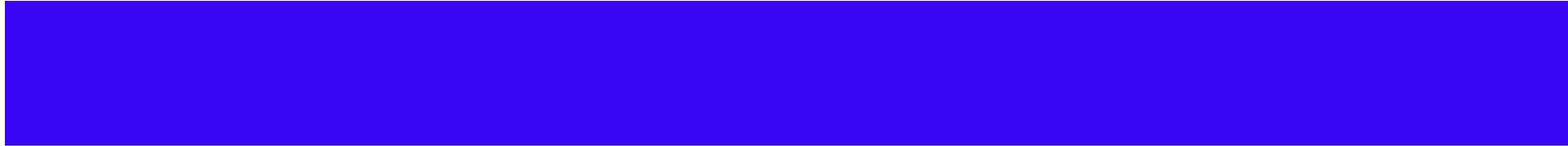
Poster Outline

- Title and Author
- Introduction or Background (**Not critical for QAC380**)
- Research questions or hypotheses
- Methods (Sample, Measures and Analyses)
- Results
- Discussion (findings in context – research and limitations)
- Conclusions or Implications
- References (**if you have any**)

Title ...

The Association between Psychiatric Disorders and
Nicotine Dependence

Do Psychiatric Disorders Moderate the Relationship
Between Cigarette Exposure and Nicotine
Dependence?



Research Questions/Hypotheses

- Which psychiatric disorders are independently associated with nicotine dependence after adjusting for comorbidity?
- Do psychiatric disorders moderate the association between smoking quantity and nicotine dependence?

Methods

Sample

- ▣ The sample was drawn from the **first wave** of the **National Epidemiologic Study of Alcohol and Related Conditions (NESARC)**, a nationally representative sample of **non-institutionalized adults** in the US.
- ▣ Young adults (age 18 to 25) who reported daily smoking in the past year (**n=1 320**).

Methods

If you data managed, talk about final construct!!

Measures

- ▣ Lifetime psychiatric disorders were assessed using the NIAAA, Alcohol Use Disorder and Associated Disabilities Interview Schedule – DSM-IV (AUDADIS-IV) (Grant et al., 2003, Grant et al., 1995).
- ▣ The following disorders were examined: major depression, dysthymia, generalized anxiety disorder, panic disorder with or without agoraphobia, social phobia, specific phobia, alcohol dependence, other drug dependence (i.e. amphetamine, opioid, sedative, tranquilizer, cocaine, inhalant, hallucinogen, cannabis, or heroin), and antisocial personality disorder (ASPD).
- ▣ The tobacco module contains detailed questions on tobacco use and symptom criteria for DSM-IV nicotine dependence. Current smoking was evaluated through quantity (“On the days that you smoked in the last year, about how many cigarettes did you usually smoke?”).

Methods

Analyses

- ▣ **Chi Square analyses** were conducted to examine the bivariate association between each psychiatric disorder and nicotine dependence.
- ▣ **Logistic regression models** were then estimated to test the association between individual psychiatric disorders and nicotine dependence, with control for **comorbid psychiatric disorders, current smoking quantity, other tobacco use in the past year (i.e. cigars, snuff, pipe or chewing tobacco), age, ethnicity and gender.**
- ▣ Next, two-way interactions between psychiatric disorders and current smoking quantity were included in the models **to evaluate whether** the relationship between nicotine dependence and current smoking was similar for individuals with and without psychiatric disorders.

Results...

- Descriptives sparingly (univariate)
- Focus on multivariate and bivariate (these are your findings).
- Figures
 - Avoid loads of text
 - Share findings in a visual and penetrable way

Results (univariate)...

- 61% (SE 1.54) of daily, young adult smokers met criteria for DSM-IV nicotine dependence in the past year.
- 55% met criteria for one or more psychiatric disorder.
- The most common disorder among daily smokers was alcohol dependence (45% SE 1.9)

Results (bivariate)...

- When examining the association between lifetime major depression (**majordeplife - categorical**) and past year nicotine dependence (**tab1 2mdx - categorical**), a Chi Square analysis revealed that among daily, young adults smokers (**my sample**), those with past year nicotine dependence were more likely to have experienced major depression in their lifetime (36.2%) compared to those without past year nicotine dependence (12.7%), ($X^2 = 88.60$, 1 df, $p = 0.0001$).

DO NOT INCLUDE TEXT IN RED

Reporting results....

- When examining the association between current number of cigarettes smoked (usquan - continuous) and past year nicotine dependence (tab12mdx - categorical), an Analysis of Variance (ANOVA) revealed that among daily, young adult smokers (my sample), those with nicotine dependence reported smoking significantly more cigarettes per day (Mean=14.6, s.d. ± 9.15) compared to those without nicotine dependence (Mean=11.4, s.d. ± 7.43), $F(1, 1313)=44.68, p=0001$.

DO NOT INCLUDE TEXT IN RED

Reporting results....

- When examining the association between current number of cigarettes smoked and past year nicotine dependence, an Analysis of Variance (ANOVA) revealed that among daily, young adult smokers, those with nicotine dependence reported smoking significantly more cigarettes per day (Mean=14.6, s.d. ± 9.15) compared to those without nicotine dependence (Mean=11.4, s.d. ± 7.43), $F(1, 1313)=44.68, p=0001$.

TEXT IN BLUE WOULD BE INCLUDED ON THE POSTER

Reporting multivariate results...

- After adjusting for potential confounding factors, major depression (Beta=1.34, $p=.0001$) was significantly and positively associated with number of nicotine dependence symptoms.
- After adjusting for potential confounding factors, major depression (O.R. 4.0, CI 2.94-5.37) was significantly and positively associated with the likelihood of meeting criteria for nicotine dependence.

Discussion...

- Individuals with major depression, specific phobia and ASPD were more likely to have nicotine dependence than those without these disorders. This was consistent across levels of smoking.
- In contrast, alcohol dependence moderated the association between smoking quantity and nicotine dependence. Individuals with alcohol dependence were more likely to have nicotine dependence at low levels of daily smoking, but not at the highest levels when compared to individuals without alcohol dependence.
- These findings confirm the association between specific psychiatric disorders and nicotine dependence and extend this work by showing higher rates of nicotine dependence at relatively low levels of smoking for those with depression, specific phobia, ASPD and alcohol dependence.
- Notably, the present findings are based on cross-sectional data and do not reflect the smoking levels at which nicotine dependence emerges. Third variables not examined that may account for these associations cannot be ruled out.

Conclusions or Implications...

- Further research is needed to determine whether sensitivity to nicotine dependence is based on physical and/or psychological differences related to psychiatric disorders.

OR

- Young adults with major depression, alcohol dependence, specific phobia or ASPD may be an appropriate group for smoking intervention that more directly targets emerging nicotine dependence symptoms at low levels of smoking.

Limitations

- Absolutely critical
- Clients need to understand the limits on their data so they don't over-interpret/misinterpret

For example:

- The sample size was too small to adequately test some hypotheses. Low statistical power could make a true association appear nonsignificant.
- Replication is critical in order to gain more confidence in the results found in this study.
- There are other possible ways to define perceptions. This research only tested one possible definition. Different definitions could produce different results.
- It is possible that participants may have interpreted a question differently from what was intended.



The Poster Layout/Design



1. What font to use

Type size should be **28 points** or larger:

18 point

20 point

24 point

28 point

36 point

1. What font to use

DO NOT USE ALL CAPITAL LETTERS
BECAUSE IT'S REALLY HARD TO READ!

2. Color

Dark letters against a light background work.



2. Color

Light letters against a dark background also work

2. Color

Avoid red-green combinations because a large fraction of the human population is red-green colorblind.

Lots of people can't read this -
and even if they could, it makes your eyes hurt.

2. Color

Other color combinations can be equally bad:

Other color combinations can be equally bad!

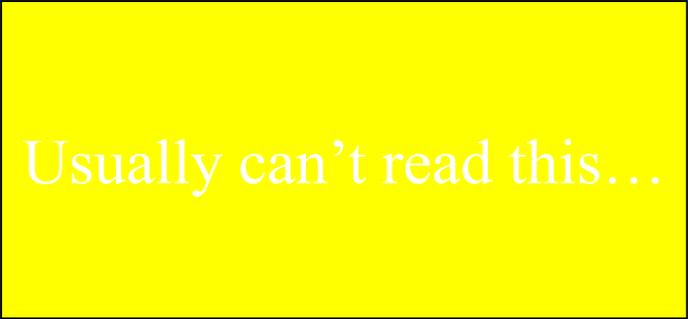
I See A Ghost

- More contrast on monitor than poster
- Colors to avoid with white are:

- Light Green

- Light Blue

- Pale Yellow



Usually can't read this...

- Your poster should have good contrast

2-3 colors, no more!



Poster title goes here, containing strictly only the essential number of words...

Author's Name/s Goes Here, Author's Name/s Goes Here, Author's Name/s Goes Here

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Introduction

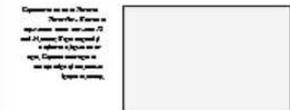
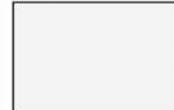
First ...
 Check with conference organisers on their specifications of size and content for your poster (e.g. maximum poster size and landscape portrait or square).
 The page size of the poster template is A0 (841 x 1189 mm), landscape (horizontal) format. Don't change this page size. If you can scale it to a smaller or larger size when printing, this is usually a different poster template, a portrait vertical or a square poster template.
 Bear in mind you do not need to fill up the whole space allocated by some conference organisers (e.g. 80 cm high in the USA). Don't make your poster bigger than necessary. It will be hung on a wall.

Aim

How to use this poster template ...
 Simply highlight the areas in red to copy into your own word or design package your text from a MS Word document or a Power Point slide presentation.
 The body text font size should be between 24 and 32 point. Arial, Helvetica or Arialize, respectively, are suitable, not just for text.
 The colour of the text on a plain poster background can be changed to the colour of your choice.

Method

- Tips for making a successful poster ...**
- Rewrite your paper in poster format. **Simply everything and save on ink!**
 - Headings of more than 6 words should be in upper and lower case initial capitals.
 - If ever you write in all caps or in all lower case, stress your point by using bold characters instead.
 - When laying out your poster leave breathing space around your text. Don't crowd over your poster.
 - Try using photographs or other graphics. Avoid long numerical tables.
 - Spell check and get someone else to proof read.



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Results

Printing the results files ...
 Images such as photographs, graphs, diagrams, logos, etc. can be added to the poster.
 To be successful in images for your poster go through the menus as follows: Insert > Picture > From File ... then find the file on your computer, select and press OK.
 The best image file format is either JPEG or TIFF. JPEG is the preferred format.
 Beware of the image size you are importing. The average colour photo (13x 18 cm at 300 dpi) would be about 3MB (1024 x 688 pixels). Call the University.
 Do not use images from the web.

How to do graphs ...
 For simple graphs use MS Excel or other graphically rich software.
 Graphs with a sidekick graphing program (e.g. Sigma Plot, Plot, SPSS, Sigmaplot) should be saved as JPEG or TIFF files. For more information see the University website.



Copyright © 2004 by Thomas Thurnher. All rights reserved. Printed in Great Britain. All rights reserved. Printed in Great Britain. All rights reserved. Printed in Great Britain. All rights reserved.

Printing and Lamination

Once you have completed your poster (being known to the printer), you will produce a 13 size that prints you check and proofread. The final poster will then be printed and laminated.
 Hope Don't take your poster until the last minute. Allow at least 2 weeks for printing and lamination. Simply highlight the areas to replace.
 Cost ...
 For poster printing and lamination charges contact the University.

Conclusion

For more information on Poster Design, Scanning and Digital Photography and Image file sizes.
 Contact:
 Medical Illustration Unit
 Prince of Wales Hospital
 Rhondda Cynon Taff
 Email: med.illustr@princeofwales.ac.uk
 Website: www.princeofwales.ac.uk

Acknowledgements

Just highlight the areas to replace with your own text. Replace it with your text.

Whoa! Where's my sunglasses?

This attracts attention but wears out the eye

UNIVERSITY OF WALES

POSTER TITLE GOES HERE, CONTAINING STRICTLY ONLY THE ESSENTIAL NUMBER OF WORDS...

UNIVERSITY OF GLAMORGAN

Author's Name/s Goes Here, Author's Name/s Goes Here, Author's Name/s Goes Here
Address/es Goes Here, Address/es Goes Here, Address/es Goes Here

Poster...
Check with conference organisers of their applications (size and orientation) before you submit your poster (eg. maximum poster dimensions are portrait or square).
The paper size of the poster depends on the conference (eg. 100cm x 150cm for the Royal Society). Do not change the paper size, MU can adjust the number of lines and the printing. If you need a different paper size with different orientation (vertical or a square poster template).
Remember that you are submitting the poster to a conference organiser (eg. 2018 in the USA). Do not make your poster bigger than necessary for the conference.
Check with conference organisers of their applications (size and orientation) before you submit your poster (eg. maximum poster dimensions are portrait or square).
The paper size of the poster depends on the conference (eg. 100cm x 150cm for the Royal Society).

How to make a successful poster...
Simply highlight the essential text.
By using your own laptop or copy and paste your text into MS Word to ensure a better font size and layout.
The following text boxes can be moved up or down depending on how big or small your 'Introduction', 'Aim', 'Method', 'Results', 'Discussion' are.
The body text boxes should be between 3 lines (3 points) and 10 lines (10 points).
Remember that you are submitting the poster to a conference organiser (eg. 2018 in the USA). Do not make your poster bigger than necessary for the conference.

Printing and Laminating...
Once you have completed your poster, print it on MU paper. We will produce a 3-laminated poster, you check and proofread. The final poster will then be printed and laminated.
If you do not have your poster until the morning, allow at least 2 working days before you need to print. Simply highlight the essential text.

Contact...
For more information:
Poster Design, Scanning and Digital Photography, and Image/Website.
Contact:
Medical Illustration Unit
University of Wales - Cardiff
Phone: 0117 257 3200
Email: mu@uwc.ac.uk
Website: www.uwc.ac.uk

Just highlight the essential text with your own text. Replace with your text.

Blue on Red appears blurry to the human eye.

Yellow on white is hard to read

Red on Blue appears blurry to the human eye.

3. Layout

Keep the layout and style as consistent as possible

Every section should have a heading.

Sentences are generally preferred.

Font type the same throughout

Excellent...

NC STATE JOURNAL



Southern Flounder Exhibit Temperature-Dependent Sex Determination

J. Adam Luckenbach*, John Godwin and Russell Boeski
Department of Zoology, Box 7617, North Carolina State University, Raleigh, NC 27695



Introduction

Southern flounder (*Paralichthys lethostigma*) support valuable fisheries and show great promise for aquaculture. Female flounder are known to grow faster and reach larger adult sizes than males. Therefore, information on sex determination that might increase the ratio of female flounder is important for aquaculture.

Objective

This study was conducted to determine whether southern flounder exhibit temperature-dependent sex determination (TSD), and if growth is affected by rearing temperature.

Methods

- Southern flounder blood and tissue were exposed to collect eggs and sperm for *in vitro* fertilization.
- Fertilized larvae were reared from a natural diet (mysis/Artemia) to high protein pellet food and fed until saturation at least twice daily.
- Upon reaching a mean total length of 40 mm the juvenile flounder were stocked at equal densities into one of three temperatures (18, 23, or 28°C) for 245 days.
- Counts were preserved and later sectioned at 2-6 microns.
- Sex-distinguishing markers were used to distinguish males (spermatogones) from females (oogones).

Histological Analysis

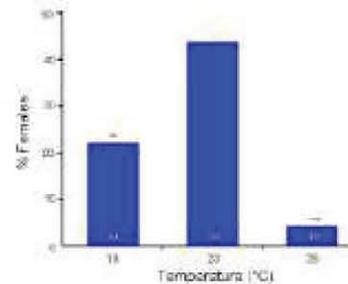


Male Differentiation



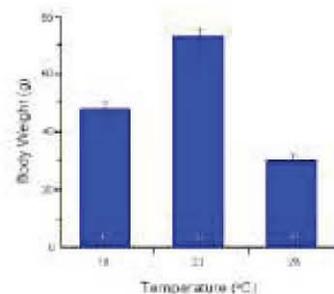
Female Differentiation

Temperature Affects Sex Determination

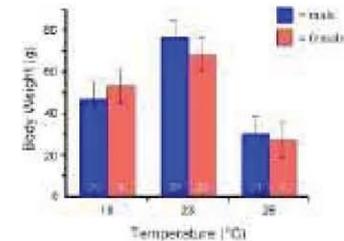


*** $P < 0.001$ and **** $P < 0.0001$ represent significant deviations from a 1:1 male:female sex ratio.

Rearing Temperature Affects Growth



Growth Does Not Differ by Sex



Results

- Sex was discernible in most fish greater than 120 mm long.
- High (28°C) temperatures produced 8% females.
- Low (18°C) temperature produced 22% females.
- Mid-range (23°C) temperature produced 44% females.
- Fish raised at high or low temperatures showed reduced growth compared to those at the mid-range temperature.
- Up to 245 days, no difference in growth existed between sexes.

Conclusions

- These findings indicate that sex determination in southern flounder is temperature-sensitive and temperature has a profound effect on growth.
- A mid-range rearing temperature (23°C) appears to maximize the number of females and promote faster growth in young southern flounder.
- Although adult females are known to grow larger than males, no difference in growth between sexes occurred in age-0 to 1 year southern flounder.

Acknowledgements

This author acknowledges the Advanced Graduate Program of the National Marine Fisheries Service and the University of North Carolina-Asheville College Program for funding this research. Special thanks to Lisa Wilson and Beth Starnes for help with the work.



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Objective

This study was conducted to determine whether southern flounder exhibit temperature-dependent sex determination (TSD), and if growth is affected by rearing temperature.

Methods

- Southern flounder ~~hatched~~ were strip spawned to collect eggs and sperm for *in vitro* fertilization.
- Hatched larvae were weaned from a natural diet (~~zooplankton~~) to high protein ~~pelleted~~ food and fed until satiation at least twice daily.
- Upon reaching a mean total length of 40 mm, the juvenile flounder were stocked at equal densities into one of three temperatures 18, 23, or 28°C for 245 days.
- Gonads were preserved and later sectioned at 2-6 microns.
- Sex-distinguishing markers were used to distinguish males (spermatogenesis) from females (oogenesis).

Histological Analysis

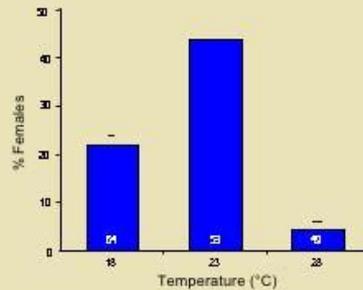


Male Oogenesis



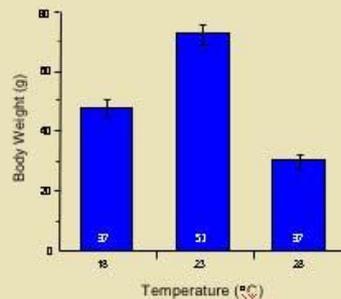
Female Oogenesis

Temperature Affects Sex Determination

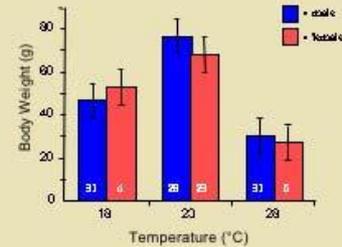


(* P < 0.01 and *** P < 0.001 represent significant differences from a 1:1 male:female sex ratio)

Rearing Temperature Affects Growth



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Results

- Sex was discernible in most fish greater than 120 mm long.
- High (28°C) temperature produced 4% females.
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- Mid-range (23°C) temperature produced 44% females.
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- A mid-range rearing temperature (23°C) appears to maximize the number of females and promote better growth in young southern flounder.
- Although adult females are known to grow larger than males, no difference in growth between sexes occurred in age-0 (< 1 year) southern flounder.

Acknowledgements

The authors acknowledge the support of the following organizations: National Science Foundation, University of North Carolina, and the Department of Zoology at North Carolina State University. We also thank the following individuals for their assistance: [names obscured]

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Methods

- Southern flounder ~~eggs~~ were strip spawned to collect eggs and sperm for *in vitro* fertilization.
- Hatched larvae were weaned from a natural diet (~~eggs~~) to high protein ~~eggs~~ feed and fed until satiation at least twice daily.
- Upon reaching a mean total length of 40 mm, the juvenile flounder were stocked at equal densities into one of three temperatures 18, 23, or 28°C for 245 days.
- Gonads were preserved and later sectioned at 2-6 microns.
- Sex-distinguishing markers were used to distinguish males (spermatogenesis) from females (oogenesis).

Histological Analysis

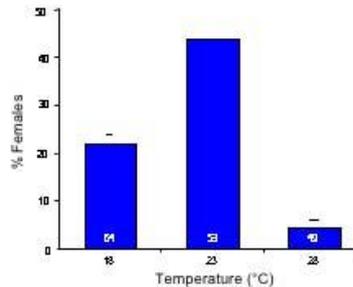


Male DV Gonad section



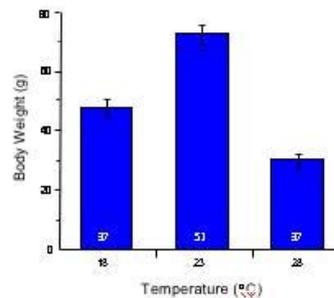
Female DV Gonad section

Temperature Affects Sex Determination

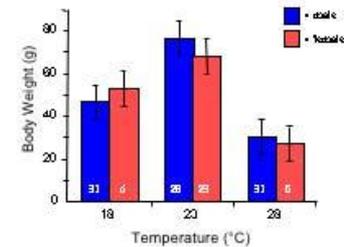


(* P < 0.01 and *** P < 0.001 represent significant differences from a 1:1 stable, natural sex ratio)

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Growth Does Not Differ by Sex



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Acknowledgements

This research was supported by the National Science Foundation (NSF) Grant IOB-0831841. We thank the staff of the North Carolina State University Aquaculture Research Station for their assistance in conducting this research. We also thank the staff of the North Carolina State University Department of Zoology for their assistance in conducting this research.

No busy backgrounds...

NC STATE UNIVERSITY

Snook Growth in Habitats with Differing Abiotic Variability

Alesia Read, North Carolina State University, aread@unity.ncsu.edu

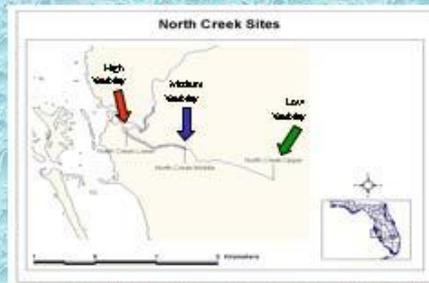


PROPOSED OBJECTIVE

To create a useful tool for assessing potential stocking habitats based on degree of variability in water quality.

- Snook are a popular game fish found in the estuarine creeks of Florida
- Snook population has been on the decline due to overfishing and habitat degradation
- Numerous stock enhancement endeavors are currently underway without sufficient preliminary research
- Abiotic variability is a prominent feature of these estuaries
- Temperature, dissolved oxygen and salinity might play influential roles in the survivorship of the juvenile snook

STUDY SITES



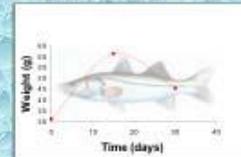
METHODS



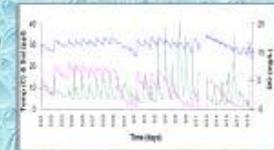
1. Juvenile snook are raised to fingerlings (100-200 mm) in the aquaculture facility
2. All snook are tagged with identifying markers for individual growth measurements
3. Fish are placed in cages within variable habitats at the research sites for 40 days
4. Fish are weighed and measured for growth

RESULTS

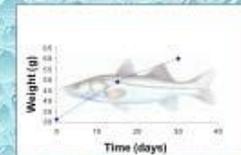
North Creek Lower (High Variability)



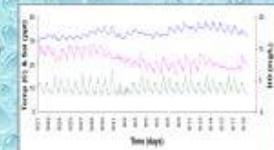
Negative Growth:
Dissolved Oxygen (mg/L)
0-22
Salinity (ppt)
2-21
Temp (°C)
25-34



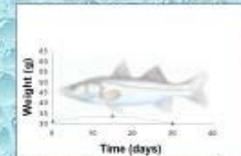
North Creek Middle (Medium Variability)



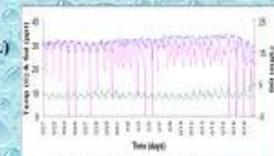
Positive Growth:
Dissolved Oxygen (mg/L)
0-8
Salinity (ppt)
16-28
Temp (°C)
30-38



North Creek Upper (Low Variability)



Slow Growth:
Dissolved Oxygen (mg/L)
0-4
Salinity (ppt)
16-30
Temp (°C)
26-33



DO (mg/L) [SA] (ppt) [Temp] (°C)

CONCLUSION

- Snook exhibit increased growth in habitats with a medium degree of abiotic variability
- Stock enhancement projects will be more efficient by releasing juvenile snook primarily in nursery habitats with a medium degree of abiotic variability



PREVALENCE OF OBESITY AMONG INNER CITY LATINO CHILDREN AND ADOLESCENTS

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Background

Obesity is a multi-causal and public health problem facing children and adolescents in the US. Of particular significance is the increasing prevalence of obesity and its complications among the Latino population. Among the ethnic group, there is a strong focus of family and children as a priority. One area of the program placed on children, has been for a recurrent concept that children should use for family health either because such as TV. Obesity in children and adolescents is increasing not only because of the abundance of high-calorie and high-fat foods, but also because obese children tend to become obese adults. Thus, obesity is considered a chronic disease. It will be an economic impact on the health care system.

Purpose of Study: To measure the extent of obesity among inner city Latino children and adolescents (10-19) for the overall goal of designing the need for an obesity intervention program.

Study Design

The research was done for a study of children and adolescents aged 10-19 years, who randomly selected from well-child visits at Children's Hospital's Latino Market Clinic for the academic year 2010. The study was an average of 100-150 patients a month, approximately monthly are Latino, predominantly from El Salvador. Information collected from the chart included height, weight, blood pressure, waist circumference, body mass index (BMI) was calculated from measured height and weight. This analysis was done using SAS version 9.3.

Results

The characteristics of the study sample is shown in Table 1. About 10% were females. The average age was 12.4 years with a SD of 1.4 and a range of 10 to 17 years. The mean BMI was 20.8 with a SD of 3.4 and a range of 13.3-32.9. Overall, 60% of the children and youth were overweight (BMI), 30% percentage of at risk for overweight (BMI < 16.5) percentage with no direct equal distribution between the two categories (Table 2). Table 3 shows the prevalence of overweight and at risk for overweight from females, but the gender difference was not statistically significant. The prevalence of overweight was higher for youth ages 10-14 years.

Table 1. Population statistics

Variable	Prevalent %
Gender	
Male	91.4
Female	8.6
Age Category (years)	9-12.9
9-10	4.9
10-11	2.4
11-12	7.1
12-13	4.4
13-14	9.4
14-15	12.4
15-16	9.1

Results continued

Table 1 shows the distribution of overweight and at risk for overweight by age category. These data show that prevalence of overweight and at risk for overweight is high in children as young as 10-14 years. Although the prevalence of overweight and at risk for overweight is as lowest in the age groups 14-16 years, the difference was not statistically significant. However, there was a $p < 0.01$ and $p < 0.001$ respectively.

Waist circumference was higher among the overweight than the non-overweight children and youth (p < 0.001, Fisher Exact Test). There was no difference in the frequency of occurrence of other complications in the distribution of overweight, among difficulties, behavior problems, attention, and ADHD between the overweight and non-overweight group. Only 7% of all the overweight children had their cholesterol levels checked. The cholesterol levels ranged from 112.1-235 mg/dL. Two percent of the children had their serum triglyceride measured, and the range was 173.4-709 mg/dL. There was no significant association between overweight and gender or gender-based percent in this small sample. Only 20% of the overweight children and youth were diagnosed and medications made to their obesity regarding their overweight status by their health care providers. There were no referrals for overweight interventions asked at their visits.

Table 2. BMI distribution

BMI Category	Prevalent %
At Risk for overweight (BMI < 16.5)	
1. Both sexes (n=127)	20.8
2. Male (n=96)	21.4
3. Female (n=31)	19.1
Overweight (BMI >= 16.5)	
1. Both sexes (n=114)	62.4
2. Male (n=96)	64.1
3. Female (n=18)	26.0

Table 3. At Risk for Overweight and Overweight by Age Category

Age Category	%	At Risk for Overweight (%) (BMI < 16.5) (n=127)	Overweight (%) (BMI >= 16.5) (n=114)
9-10	10.6	10.6	10.6
10-11	4.4	4.4	4.4
11-12	22.0	9.1	18.2
12-13	7.1	14.7	27.9
13-14	2.4	15.0	18.9
14-15	9.4	25.0	11.8
15-16	9.1	25.0	9.4

Conclusion & Recommendations

The prevalence rate for overweight and at risk for overweight among children and youth within inner city Latino community is lower than from the national average. Primary health care providers should acknowledge and assess the presence of obesity and overweight in children and adolescents early and provide appropriate management of the problem. Targeted interventions and primary care strategies for overweight and obesity in children and adolescents are urgently needed for this population.

Early Outcomes of the First 1471 Consecutive Kyphoplasty Procedures in the United States for the Fixation of Painful Osteoporotic Vertebral Body Compression Fractures (VCF)

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BACKGROUND

- 700,000 VCFs per year
- 275,000 diagnosed, +80% due to pain
- Spinal deformity associated with
 - Significant morbidity
 - 22% increased mortality (Kato, Ann Int Med 1989)
- Current treatments ineffective
 - Open surgery fail
 - Medical management palliative
- Vertebroplasty
 - Bilateral transpedicular cement fill
 - Relieves pain
 - Requires high pressure and runny cement
 - High risk of cement leaks
 - Up to 73% when documented (West et al., Radiology 1997)
- Major complications (Chen, J Int Neuronal 1997)
 - 1.3% in osteoporosis
 - 10% in metastatic cancers

KYPHOPLASTY

Kyphoplasty is a minimally invasive orthopedic procedure for reducing and fixing painful vertebral body compression fractures secondary to osteoporosis. Using a posterior approach, one or two inflatable Bone Tamps (Fig. 1) are inserted into the fractured vertebral body, generally using a bilateral transpedicular approach (Fig. 2). The surgeon carefully inflates the balloon tamps (Fig. 2) using radiopaque contrast medium with image, volume and pressure control. The increased balloon tamp volume compacts the inner cancellous bone as it pushes the fractured outer cortical bone back toward its normal position. The inflation path is also controlled by placement, volume and balloon design. After reduction, the balloon tamp is removed, and the resulting void is filled with thick PMMA under live manual control and low pressure. The steps of Kyphoplasty are illustrated in Fig. 3.

Figure 1 Inflatable Bone Tamp (BT)



Figure 1a: One of the first 1471 procedures of fracture under control of a void in cancellous bone.



Figure 2: Bilateral Transpedicular Fracture Reduction with the BT.

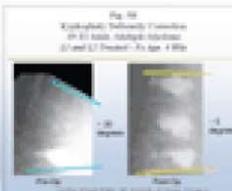
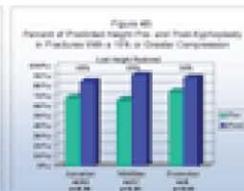
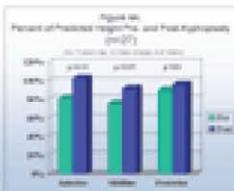
Figure 3: Kyphoplasty Using the BT



STUDY DESIGN AND METHODS

A retrospective multi-center review to assess early outcomes with Kyphoplasty. Pain was localized by physical examination. The presence of incision scars and collages was confirmed on MRI. General or deep local anesthesia was chosen based on anatomy, number of levels and patient status. The first 125 patients at our centers were asked to characterize their back pain as improved, the same or worse 24 hours post-op and at last follow-up. Fractured and nearest normal vertebral body heights were measured anterior, middle and posterior in the first 27 vertebral body fractures treated by one surgeon (MAM). The height of the nearest normal vertebral body was used to calculate the % of predicted height for all the vertebral bodies (Fig. 4A) and for the sub-set where which had lost 10% or more of height before treatment (Fig. 4B).

The pre-treatment height was subtracted from the predicted height, then divided by the post-treatment height subtracted from the predicted height, to find the percentage of lost height restored. One set of 3 rays by one surgeon (JMP) are used to show an example height restoration (Fig. 5A) and deformity correction (Fig. 5B). Device-related major complications from all procedures are reported. Patient leaks in the first 70 procedures performed by one surgeon (JPL) were assessed with X-ray and MRI.



PRELIMINARY RESULTS

- 100% fracture union rate
 - Average follow-up: 4.5 months
 - Range: 10 days to 3 years
- 90% patients
- 90% patients (perle Table 1)
- Average reduction: 3.7
- Average fracture position: 10% (range: 0-10)
- Average long follow-up rate: 1.5 (range: 1-10)
- More than 90% patients pain relief
- 100% satisfaction
- 90% patient satisfaction at last follow-up
- 90% patient satisfaction of fracture (Fig. 6) (N=10)
- No cement extrusion or adjacent fracture
- 100% device-related major complications
 - 1.3% spinal cord
 - 1.3% fracture
 - 1.3% leakage
 - 1.3% leak
- 0% leak rate (with follow-up long term)

CONCLUSIONS

Kyphoplasty is an important treatment option that provides immediate stability and return to activities of daily living to patients with acutely painful vertebral body compression fractures secondary to osteoporosis. Kyphoplasty facilitates fracture reduction and deformity correction. While reduction is more likely in acute fractures (few months or less), it has been seen in fractures over one year old. Kyphoplasty also provides rapid pain relief to the nearly all patients, and this result is independent of fracture reduction. The safety profile of Kyphoplasty compares favorably to the published safety profile of vertebroplasty.

LESSONS LEARNED FROM AIRWAY PRESSURE RELEASE VENTILATION (APRV)

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INTRODUCTION

Airway Pressure Release Ventilation (APRV) (aka, BiPAP) has been previously demonstrated to be a useful modalitiy to manage patients with acute lung injury (ALI) or the acute respiratory distress syndrome (ARDS). As this is a fundamentally different mode than conventional cyclic ventilation, we obtained a single institution's experience with APRV to determine safety, complication detection, and efficacy at resolving hypoxemia and hypercarbia.

METHODS

Consecutive patients transitioned from either volume or pressure targeted ventilation to APRV (Dräger Edith 4 Pulmonary Workstation) at a University hospital surgical ICU were retrospectively reviewed. Patients initially ventilated with APRV were excluded. Initial APRV settings 20 cm H₂O (plateau) (P_{0.1} ≥ 60 torr vs P_{0.1} ≥ 60) with FIO₂ ≥ 0.5) were a P_{high} at the prior plateau pressure, a T_{high} of 6.0 sec and a T_{low} of 0.8 sec. Hypercarbic (pCO₂ ≥ 55 torr and pH ≤ 7.2) patients were set on a T_{high} of 5.0 sec and a T_{low} of 1.0 sec. Settings were adjusted to resolve hypoxemia and hypercarbia. IRB approved abstracted data included principal diagnoses, ventilator parameters, laboratory values and ventilator associated complications. Data before and after APRV were compared using a two-tailed paired t-test or Chi-square as appropriate; significance was assumed for p < 0.05 (*).

RESULTS

Demographics

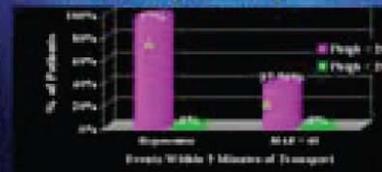


APRV

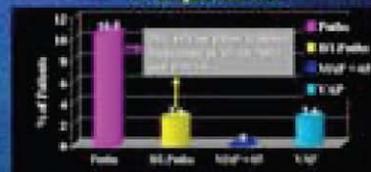


Element	Value
% Hypoxemia	88%
% Hypercarbia	12%
Time to S _{0.2} ≥ 92%	7 ± 4 min
Time to P _{0.1} ≥ 6.8	5.2 ± 0.9 hr
Time to pCO ₂ < 40 torr	42 ± 7 min
Time to max Δ pCO ₂	76 ± 17 min
Mean change in V _E	-3.2 ± 0.9 L/min ²

Transport Safety



Complications



CONCLUSIONS

1. APRV is a safe rescue mode for hypoxemic or hypercarbic respiratory failure and requires a significantly lower V_E than conventional ventilation.
2. Decreasing release phase volumes and a rising pCO₂ are strong indicators of pneumothorax in a patient on APRV. Routine end-tidal CO₂ monitoring is recommended.
3. Preparation for safe intra-hospital transport may be keyed to the P_{high} required for oxygenation and ventilation. Patients requiring a P_{high} > 20 cm H₂O should be transported on the ventilator.

No Equations

$$\begin{aligned}X' &= A * B \\&= (A - (2^p - 1)) * (B - (2^q - 1)) \\&= AB - B(2^p - 1) - A(2^q - 1) + (2^p - 1)(2^q - 1)\end{aligned}$$

$$\begin{aligned}X'' &= (A - E_p)(B + E_q) \\&= AB + AE_q - BE_p - E_p E_q \\&= AB + AE_q - (BE_p + E_p E_q) \\&= AB + AE_q - \frac{E_p E_q}{2} - \left(BE_p + \frac{E_p E_q}{2} \right)\end{aligned}$$

$$f(X', X'') = \frac{\Gamma}{2} \sum \frac{\frac{X' \delta \alpha \max(\phi^2)}{X'' \Gamma^{3/2}} \sum \epsilon \sqrt{AB + AE_q - \frac{E_p E_q}{2} - \left(BE_p + \frac{E_p E_q}{2} \right)}}{\int_R \phi \rho f(\vec{X} | S_k) \frac{1}{(2\pi)^{d/2} \sigma^d} * \frac{1}{P_k} \sum_{i=1}^{P_k} \exp \left[-\frac{(\vec{X} - \vec{W}_{ki})^T (\vec{X} - \vec{W}_{ki})}{2\sigma^2} \right]}$$

□ Ummm... okay...

Speelchick

- How smart will people think you are?
- Watch for:
 - ▣ there/their/they're
 - ▣ too/to/two
 - ▣ its/it's
 - ▣ Have a friend/TA/Instructor check (and give them enough time to do it)

Final Sweep

- Spell Check and then spell check again!!
- Use “association” rather than “correlation”
- Remove all first person!
- Causal language
 - remove completely from your results
 - may be presented as a possibility in your Background or Discussion (in context of limitations).